REVIEW OF HYDROGEOLOGIC INVESTIGATIONS AT THE J.F. QUEENY PLANT, MONSANTO CHEMICAL COMPANY, ST. LOUIS, MISSOURI

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TABLE OF CONTENTS

																								<u>P</u>	<u>age</u>
INTRO	DUCI	ION	Ι.	, ,		•		•	•	•	•	•		•		•	•								1
PREVI	ous	INV	ÆS	ST]	[G	ΑT	IO	NS				•		•			•				•				2
HYDRO	GEOI	LOGY				•	•			•						•	•								3
	Geol Grou	ind-	-Wa	ate	er	F	10	W	Pa	tt	er	ns	·	•	•	•	•								3 4 6
GROUN	ID-WA	ATEF	ξ	QU <i>I</i>	AL	ΙT	Y									•	•			•		•			7
	Pric Nonp Pric	orio	ori	ity	Y	Po	11	ut	ar	ıt	Or	ga	ni	C	Pa	ra	me	te	rs		•	•			8 10 11
PERCH	ILORO	ETH	IY)	LEI	NE	I	NV	ES	TI	G	TI	101	1.	•	•	•		•		•	•				11
LASSO	иі с	/ESI	CIC	3A:	ΓI	ON	•		•	•				•				•	•	•	•				14
SUMMA	ARY.			•	•	•	•			•	•	•			•			•	•		•	•			16
											T?	ABI	LES	5											
1.	Summ Reco	ovei	сy	We	el	ls	,	J.	F.	ζ	Que	eer	ıy	Pl											
2.	Wate Plan																								
3.	Summ J.F. Loui	. Qı	1ee	en	У	Pl	ar	ıt,	e N	O1 Ior	rga	ani ant	ic co	Ch	mp	ou	nd al	ls . C	ir Com	n G npa	ro	un ',	d W	ate	r,
4.	Sumr J.F. Loui	. Qi	ie	en	Y	Pl	ar	nt,																ate	r,
5.	Sumr Wate St.	er,	J	. F		Qu	ee	eny	, I	218															

TABLES (continued)

- Summary of Pesticides/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Chemical Company, St. Louis, Missouri.
- 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Chemical Company, St. Louis, Missouri.
- 8. Tentative Identification of Non Priority Pollutant Organic Compounds, J.F. Queeny Plant, Monsanto Chemical Company, St. Louis, Missouri.
- 9. Concentration of Tetrachloroethylene (PCE) in Soil Samples Collected in the Vicinity of the Leaking PCE Tank, J.F. Queeny Plant, Monsanto Chemical Company, St. Louis, Missouri.
- 10. Concentration of Tetrachloroethylene (PCE) in Ground-Water Samples Collected in the Vicinity of the Leaking PCE Tank, J.F. Queeny Plant, Monsanto Chemical Company, St. Louis, Missouri
- 11. Concentrations of Alachlor and Associated Compounds in Ground-Water Samples Collected near the Lasso Production Area, J.F. Queeny Plant, Monsanto Chemical Company, St. Louis, Missouri.

FIGURES

- 1. Well Locations and Line of Section A-A'
- 2. Generalized Hydrogeologic Cross Section
- 3. Configuration of the Water Table, April 17-24, 1985
- 4. Configuration of the Water Table, December 1, 1985
- 5. Configuration of the Water Table, September 23, 1987
- 6. Distribution of Mean Total Volatile Organic Compounds in Ground Water
- 7. Distribution of Mean Total Acid Extractable Organic Compounds in Ground Water
- 8. Distribution of Mean Total Base/Neutral Organic Compounds in Ground Water

FIGURES (continued)

- Soil Boring and Monitoring Well Locations in the Vicinity of FF Building
- 10. Concentration of PCE in Soil
- 11. Concentration of PCE in Ground Water
- 12. Soil Boring and Monitoring Well Locations in the Vicinity of the Lasso Production Area
- 13. Configuration of the Water Table in the Vicinity of the Lasso Production Area
- 14. Distribution of Alachlor in the Vicinity of the Lasso Production Area - December 1986
- 15. Distribution of Compounds Associated with Lasso Production December 1986

APPENDIX

A. Geologic Logs and Well Construction Details

REVIEW OF HYDROGEOLOGIC INVESTIGATIONS AT THE J.F. QUEENY PLANT, MONSANTO CHEMICAL COMPANY, ST. LOUIS, MISSOURI

INTRODUCTION

At the request of Monsanto Chemical Company, Geraghty & Miller, Inc. has prepared this summary report of hydrogeologic investigations conducted at the J.F. Queeny plant, St. Louis, Missouri. The purpose of this study was to summarize the work completed to date and present the results in a single document. Most of the hydrogeological and chemical data contained in this report were developed by others. However, hydrogeologic studies are continuing at the plant to verify and supplement the existing data base.

The existing monitoring well network and data base have been developed from hydrogeologic investigations conducted by Environmental Science and Engineering, Inc. (ESE), Brotcke Engineering Company, Inc. (BEC), and Geraghty & Miller, Inc. In addition to a general study to assess sitewide ground-water quality, detailed investigations were conducted in the vicinity of the Lasso Production Area and FF Building. A review of the site-specific hydrogeology and ground-water quality is presented, followed by a summary of

the Lasso Production Area and FF Building investigations. Well construction details, water-level information, and analytical results are presented in Tables 1 through 11 and Figures 1 through 15.

PREVIOUS INVESTIGATIONS

Hydrogeologic investigations at the Queeny plant began in 1983 with the installation of 16 plant-wide monitoring wells under the supervision of ESE (Phase I wells). ESE installed 12 additional plant-wide wells in 1984 to fill data gaps (Phase II wells). Many of the monitoring wells were installed in clusters, consisting of two wells which tap different intervals within the aquifer.

Two hydrogeologic investigations were conducted in specific areas of the plant (FF Building and the Lasso Production Area) to develop more detailed information in these areas. In 1985, several soil borings and three additional monitoring wells were also installed under the direction of ESE near the FF Building to assess the impact of a tetrachloroethylene (perchloroethylene [PCE]) release to the ground. In 1987, BEC installed four PCE recovery wells in this area after ESE had completed the initial phase of work.

In a separate investigation conducted in 1986, Geraghty & Miller personnel observed the installation of several soil

borings and five monitoring wells in the vicinity of the Lasso Production Area. Well locations for each study are shown on Figure 1, and well construction details are summarized in Table 1.

HYDROGEOLOGY

Geology

The J.F. Queeny plant is situated on flood-plain deposits composed of predominantly fine- to coarse-grained sand and gravel, with local layers of silt and clay. unconsolidated deposits are underlain by bedrock composed of limestone. A generalized geologic cross section of the plant area is presented in Figure 2 which illustrates an irregular bedrock surface. In general, fill material is present in some of the plant area to depths as much as 17 ft below land surface. The fill material is underlain by finegrained silt and clay which rests on bedrock in the southern portion of the plant where bedrock is found at shallow In the areas where bedrock is found at the greatest depths, coarser sand and gravel underlie the less permeable fine-grained materials, which, in turn, are underlain by additional fine-grained deposits in most areas. The geologic logs are provided in Appendix A.

The thickness of the unconsolidated deposits increases toward the Queeny plant's eastern property boundary and probably beyond the plant property to the Mississippi River. Bedrock occurs at approximately 10 ft below land surface in the vicinity of the Lasso Production Area (bedrock high), and it is found at greater depths in other areas within the plant property. In the southeastern portion of the plant property, a quarry of undetermined depth is known to have existed in the past. The geologic logs for well cluster MW11 indicate that the quarry has been filled with native unconsolidated material and fill (bricks, concrete, etc.). The drilling of the deepest well in this cluster (MW11A) extended to 83 ft below land surface and did not encounter bedrock. Depths to bedrock within the plant area are presented in Table 1.

Ground-Water Flow Patterns

Maps showing seasonal fluctuations of the water table are presented in Figures 3, 4, and 5. Data for all water-level measurements collected at the Queeny site are summarized in Table 2. Figures 3 and 4 show a mounding of the water-table beneath the southern portion of Monsanto's Queeny property. This area is discussed in more detail in the section of this report that describes the Lasso Production Area investigation. The mound is not as prominent in

Figure 5, which represents water-table conditions during the fall (dry) season. The mound may be explained by seasonal water-level fluctuations in conjunction with a shallow depth to bedrock (about 10 ft) in that portion of the facility and changes in permeability. The horizontal component of ground-water flow is generally toward the east. Although there are local components of flow in other directions within the plant boundaries, ground water ultimately discharges into the Mississippi River.

A vertical component of ground-water flow was determined from well clusters MW1AB, MW6AB, MW7AB, MW8AB, MW11AB, The vertical direction of groundand MW18AB (Table 2). water flow is generally downward, although water-level data for clusters MW1AB, MW6AB, MW7AB, and MW11AB indicated upward flow periodically. Since September 1985, there has been a consistently upward gradient in cluster MW1AB, with as much as 2.5 ft of head difference between the wells. occasional upward head in well clusters MW6AB and MW7AB may be related to seasonal fluctuations, as seen by head differences as great as 4 ft during June 1987. The predominantly upward head in well cluster MW11AB (maximum head difference of 2 ft in December 1986) may reflect a ground-water discharge area. Conversely, well clusters MW8AB and MW18AB have shown consistently downward flow, indicating that these are ground-water recharge areas (northern portion of the facility). Well construction details are provided in Appendix A.

Ground-Water Velocity

ESE conducted slug tests in 19 of the 41 existing monitoring wells to determine the hydraulic conductivity of the unconsolidated deposits. The mean hydraulic conductivity of the upper 30 ft of material is about 3 x 10^{-5} ft/sec (ft/second) (9 x 10^{-4} centimeters per second [cm/sec]). Below 30 ft, the hydraulic conductivity is approximately one-half that of the upper 30 ft and is about 1 x 10^{-5} ft/sec (4 x 10^{-4} cm/sec). The average hydraulic conductivity for both zones is 2 x 10^{-5} ft/sec and this value was used in estimating ground-water flow velocities.

The maximum and minimum lateral ground-water flow velocities of 0.5 ft/day (182 ft/year) and 0.06 ft/day (22 ft/year) were calculated by using the average value for hydraulic conductivity, a hydraulic gradient range of 0.007 to 0.05 determined from Figures 3, 4, and 5, and an assumed effective porosity of 20 percent.

The velocity values were determined from the following form of Darcy's law:

$$V = \frac{(KI) (86,400 \text{ sec/day})}{n}$$

where:

V = velocity in ft/day

K = hydraulic conductivity, in ft/sec

I = hydraulic gradient, in ft/ft, and

n = effective porosity, which is dimensionless.

The maximum velocity (1 ft/day) was calculated using the steepest water-table gradient of 13.5 ft/285 ft (0.05) from the December 1986 water-table configuration (Figure 4) in the area of well clusters 7AB and 18AB. The minimum velocity (0.006 ft/day) was determined using the minimum water-table gradient of 13 ft/1,880 ft (0.007) from the April 1985 water-table configuration, north of the mounded area (Figure 3).

GROUND-WATER QUALITY

Ground-water samples have been collected from the Phase I and Phase II monitoring well network (MW1AB through MW20) during eight sampling periods since April 1984 (Tables 3 through 7). At the time of the first three sampling rounds in 1984, only Phase I wells were installed, and Envirodyne Engineering, Inc. of St. Louis, Missouri, performed the analytical work. Subsequent sampling rounds included Phase I

and Phase II wells, and analyses were performed by Environmental Testing and Certification Laboratories (ETC) of Edison, New Jersey. However, only key wells were sampled during the 1986 sampling program.

Ground-water samples were analyzed for the U.S. Environmental Protection Agency (USEPA) priority pollutant compounds, nonpriority pollutant compounds, and total organic carbon (TOC). Analytical results for volatile organic com-(VOCs), acid extractable organic compounds, pounds base/neutral extractable organic compounds (B/N), cides and polychlorinated biphenyls (PCBs), metals, and miscellaneous parameters are presented in Tables 3 through 7, respectively. Nonpriority pollutants were analyzed and some compounds have been identified; however, most of the compounds could not be quantified. Distribution of the mean total VOCs, acid extractable organic compounds, and B/N compounds are illustrated on Figures 6, 7, and 8, respectively. Neither pesticides nor PCBs were detected in any of the monitoring wells.

Priority Pollutant Organic Parameters

The overall comparison between Envirodyne and ETC data sets is satisfactory, indicating that one laboratory generally confirms the results of the other. There are some dif-

ferences, however, which are generally limited to several VOCs for specific wells. The chlorobenzene results for Wells MW3, MW4, MW6A, MW8A, and MW19 vary by three to four orders of magnitude. Although the results provided by ETC are more consistent than Envirodyne's data, there are several other VOCs with similar fluctuations in the reported results; however, these compounds are limited to Wells MW3 and MW6A. Inconsistencies within the data base were not found for the other organic groups in the priority pollutant list.

At well cluster locations 6AB, 7AB, 8AB, and 18AB in the northern portion of the plant property, the deeper well at each location has higher mean total VOCs (Figure 6). This relationship is also true for mean total acid and B/N concentrations at well clusters MW8AB and MW18AB. These data indicate that the portion of the aquifer deeper than 30 ft below land surface contains a higher concentration of dissolved organic compounds than the uppermost portion of the saturated zone in this area of the plant.

In the southern half of the plant area, high mean total VOC concentrations occur in the vicinity of the ground-water mound at MW4, MW13, MW14, and MW19. Wells MW4, MW14, and MW19 are shallow and are screened to bedrock because the

aquifer is thin. Well MW13 screens the upper and lower saturated zones (8 to 48 ft).

Nonpriority Pollutant Organic Parameters

Envirodyne Engineers and ETC have tentatively identified, from mass spectral data, a number of organic compounds that are not on the USEPA priority pollutant list (Table 8). This list of organic parameters was not divided into chemical categories (volatile organics, acid extractable, and base/neutral extractable organic compounds) because the category for many of the compounds could not be agreed upon by the analytical laboratories. These results have not been evaluated in detail because some concentrations could only be estimated and most compounds could not be quantified.

The number of wells in which each of these compounds occurred was tabulated and is included in Table 8. The majority of the compounds were detected only once and could not be confirmed in subsequent analyses. The number of compounds detected in each well is also provided in Table 8. At the two upgradient well clusters (MW1AB and MW2AB), 20 or more compounds were tentatively identified for each cluster, with the greater number of compounds being found in the deeper well. The on-site presence of these compounds (if

they are accurately identified) may be attributed to another source(s). Well clusters MW7AB and MW8AB contained the largest number of nonpriority pollutant compounds.

Priority Pollutant Metals

The concentrations of many of the metals analyzed by Envirodyne Engineers in 1984 are significantly higher than the 1985 and 1986 results reported by ETC (Table 7). Concentrations of metals reported by Envirodyne in the background well clusters (MW1AB and MW2AB) are higher in many cases than the results reported for the downgradient well locations.

Resampling the wells in 1985 and 1986, with analysis by ETC, provided results with greater consistency. For this reason, and also because of the superior reproducibility of ETC's results compared to Envirodyne's, Geraghty & Miller has little confidence in Envirodyne's data.

PERCHLOROETHYLENE INVESTIGATION

In April 1985, ESE was retained by Monsanto to conduct a hydrogeologic investigation in the vicinity of the FF Building. The study was prompted by the discovery of per-

chloroethylene (PCE) in an underground utility manhole located west of the FF Building (Figure 1). The field investigation included soil sampling at eight locations and the installation and sampling of three monitoring wells in the vicinity of an underground PCE tank that may have leaked. Sampling locations are shown on Figure 9.

Borings were drilled by hollow-stem auger equipment. Split-barrel core samples were collected every 2.5 ft to the water table (approximately 12 to 15 ft below land surface). All soil samples were screened with a photoionization meter (HNu), and the sample within each borehole displaying the highest HNu reading was retained for soils analysis. These soil samples were sent to ETC for PCE analysis. The analytical results are presented in Table 9 and on Figure 10. Evaluation of the soil sampling analyses indicates that PCE was detected in four of seven samples analyzed, and the concentration decreases rapidly with distance from the storage tank. The highest PCE concentration in soil was detected at Boring E, located about 4 ft west of the tank.

ESE installed three monitoring wells to assess the effect of the PCE release on ground water. Monitoring Wells MW-A and MW-B were installed adjacent to the PCE storage tank; together they screen the entire saturated thickness of unconsolidated materials overlying the bedrock. Monitoring

Well MW-C was drilled east of the tank to provide additional water-quality information. Well construction details are provided in Table 1. Well MW-3 is located west of the tank and was installed during a previous study.

Ground-water samples were collected from the three monitoring wells on May 23, 1985. Well MW-A was observed to have a separate liquid phase at the bottom of the well, and a sample of the liquid was collected. Free-phase liquid was not observed in any of the other three wells sampled. The five samples were analyzed for PCE by ETC, and the analytical results are provided in Table 10 and Figure 11. Ground-water analyses show that PCE was present in Wells MW-A and MW-B at 225,832 micrograms per liter (ug/L) and 27,954 ug/L, respectively. A free-phase liquid in Well MW-A was analyzed and found to contain 859,560,000 ug/L PCE. Ground-water samples from Wells MW-C and MW-3 showed no PCE contamination (Figure 11).

Monsanto designed a recovery system which involved the installation of four wells (supervised by BEC) to the north of FF Building (Figure 9). The recovery wells were installed 5 ft into bedrock with air-rotary equipment. Recovery Wells REC-3 and REC-4 began pumping in February 1987, and Wells REC-1 and REC-2 started in April 1987. A

pure-phase PCE layer was observed in the recovery tank immediately after pumping began in February, after which no additional PCE was recovered. The recovery wells were designed to pump approximately 1 gallon per minute (gpm) with the intent of creating a cone of influence to bedrock, thereby collecting the PCE layer (which is denser than Bedrock was found at 60 ft below land surface, rather than at the anticipated 30 ft, thus the saturated thickness of unconsolidated material was significantly greater than expected. This increased thickness required greater aquifer pumping capacity. Aquifer testing of Wells REC-3 and REC-4 showed that a pumping rate of 20 gpm in these wells did not lower the water table. However, if a free-product layer was resting on the bedrock surface at the recovery well locations, it would have been drawn into the No PCE was recovered after the initial slug was wells. removed.

LASSO INVESTIGATION

Geraghty & Miller, Inc. was retained by Monsanto in September 1986 to conduct a ground-water investigation in the vicinity of the Lasso Production Area. The objectives of the study were to determine the depth and areal extent of free-phase product which had been detected in an existing

well (MW14), and to map the local ground-water flow directions.

Ten soil borings were drilled by hollow-stem auger equipment and five were completed as monitoring wells. Boring and well locations are shown on Figure 12. Continuous soil samples were collected at 2-ft intervals down to bedrock to describe the geology and possible free-product occurrence. Soil samples revealed the subsurface to be clay and silt, rather than sand or fill as previously identified, except in a local area near MW14. Apparently, MW14 was installed in a small area that was excavated at some time in the past, and it is presently filled with coarse backfill material. Soil in Borings B-2 and B-5 was stained to a depth of 4 ft below land surface; however, free product was not observed in any of the ten soil borings.

Water-level measurements were made in each new well on December 1, 1986, and the configuration of the water table is shown on Figure 13. As discussed earlier, the ground-water mound that is usually present in this area may be the result of a shallow depth to bedrock (about 10 ft), seasonal water-level fluctuations, and changes in permeability. The overburden in this area consists of low-permeable silts and clay overlying bedrock, with fill material in the vicinity

of MW14. These variable deposits most likely will have a large range of permeability values. Their effect on the configuration of the water table could result in mounded conditions.

Ground-water samples were collected from the Geraghty & Miller wells (GM-1 through GM-5) and from Well MW14, in November 1986. Free product was only found in the bottom of Well MW14, in which approximately 3 inches had been measured. Samples were analyzed by Monsanto's laboratory for constituents associated with Lasso production, including alachlor and chlorobenzene (primary components in Lasso formulation), diethylaniline (raw material), acetyl alachlor, and CP31679 (by-products). The analytical results are provided in Table 11, and the distribution of these compounds is shown on Figures 14 and 15. However, free product only occurs in the soil in a small area confined to the coarse (backfill) material in which Well MW14 was completed. Free product has not been collected from this area because the volume appears to be too small to recover.

SUMMARY

The hydrogeologic investigations conducted to date by ESE, BEC, and Geraghty & Miller have been performed to provide site-wide knowledge of the ground-water system, as well

as to collect site-specific information in the vicinity of the FF Building and the Lasso Production Area. This work provides a substantial data base for water-level and waterquality data. However, hydrogeologic studies are continuing at the plant to verify and supplement the information contained in this report.

Respectfully submitted,

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Table 1. Summary of Construction Details for Monitoring and Recovery Wells, J.F. Queeny Plant, Monsanto Chemical Company, St. Louis, Missouri.

			========			========			=========
			0-11		Screen	Takal		Height of	Danah
	D - 4 -	Measuring	Well	Comptanistica	Slot	Total Depth of	Cancan	Measuring Point Above Land	Depth To
Well	Date	Point		Construction	Size (Inches)		Screen	Surface (ft)	
Designation	Installed	Elevation (1)	(Inches)	Material	(Inches)	wett (2)	setting (3)	Surface (Tt)	Bedrock (3)
MW1A	10/7/83	430.07	2	PVC	0.02	47	35-45	2.0	59
MW1B	10/6/83	429.82	2	PVC	0.02	30	17.5-27.5	2.5	59
MW2A	10/11/83	430.77	2	PVC	0.02	50	38.5-48.5	1.5	48.5
MW2B	10/10/83	430.70	2	PVC	0.02	27.5	15.5-25.5	2.0	48.5
MW3 (MW-D)	9/30/83	425.41	2	PVC	0.02	33	21-31	2.0	31.5
MW4	9/27/83	427.33	2	PVC	0.02	19	7-17	2.0	17.5
MW5	9/28/83	426.11	2	PVC	0.02	17	5-15	2.0	17
MW6A	9/29/83	426.82	2	PVC	0.02	44.5	32-42	2.5	50
MW6B	11/20/84	426.57	2	PVC	0.02	27.5	10-25	2.5	50
MW7A	10/5/83	422.18	2	PVC	0.02	52	40-50	2.0	95
MW7B	10/6/83	422.54	2	PVC	0.02	33.5	21-31	2.5	95
A8WM	10/27/83	423.70	2	PVC	0.02	49	37-47	2.0	82.5
MW8B	10/27/83	423.67	2	PVC	0.02	35	23-33	2.0	82.5
MW 9	10/13/83	424.92	2	PVC	0.02	43	31-41	2.0	41.5
MW10	10/12/83	425.19	2	PVC	0.02	43.5	31.5-41.5	2.0	41.5
MW11A	10/20/83	426.20	2	PVC	0.02	80	68-78	2.0	••
MW11B	10/20/83	426.35	2	PVC	0.02	32	20-30	2.0	
MW11C	11/6/84	426.23	2	PVC	0.02	27.5	10-25	2.0	
MW12	12/11/84	424.03	2	PVC	0.02	21.5	6.5-21.5	0	23
MW13	11/14/84	425.98	2	PVC	0.02	50.5	8-48	2.5	
MW14	12/10/84	425.92	2	Teflon	0.02	12	5-10	2.0	10
MW15 -	11/29/84	426.63	2	PVC	0.02	18	10.5-15.5	2.5	16
MW16	12/17/84	421.15	2	PVC	0.02	43.5	8.5-43.5	0	50
MW17	11/26/84	420.52	2	PVC	0.02	52.5	10-50	2.5	
MW18A	11/30/84	423.17	2	PVC	0.02	81.5	39-79	2.5	81.5
MW18B	12/6/84	423.06	2	PVC	0.02	47.5	10-45	2.5	81.5
MW19	11/19/84	424.11	2	PVC	0.02	15.5	8-13	2.5	13
MW20	11/28/84	423.27	2	PVC	0.02	26.5	9-24	2.5	26.5
MW-A	5/85		2	Teflon	0.02	30	20-30	0	31.5
MW-B	5/85		2	Teflon	0.02	17	7-17	0	
MW-C	5/85		2	PVC	0.03	20	10-20	0	
REC-1	1/87			Stainless Steel	0.01	48	28-48		42
REC-2	1/87			Stainless Steel	0.01	64.5	44.5-64.5	•••	58
REC-3	1/87			Stainless Steel	0.01	66	46-66	•••	60
REC-4	1/87			Stainless Steel	0.01	71	51-71		66
GM-1	11/18/86	425.51		Stainless Steel	0.01	13.5	6.75-11.75	1.75	11.8
GM-2	11/18/86	425.46		Stainless Steel	0.01	11.75	4.75-9.75	2.0	9.8
GM-3	11/19/86	427.48		Stainless Steel	0.01	12.5	4.5-9.5	3.0	9.5
GM-4	11/20/86	424.28		Stainless Steel	0.01	9.5	5-10	-0.5	9.5
GM-5	11/21/86	424.53	2	Stainless Steel	0.01	16.5	6.5-16.5	-0.5	16.5
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⁽¹⁾ Elevation in feet above mean sea level.

⁽²⁾ Depth in feet below measuring point.

⁽³⁾ Depth in feet below land surface.

⁻⁻⁻ Indicates unknown.

All wells installed by ESE except for the following: REC series wells installed by Brotcke Engineering Company. GM series wells installed by Geraghty and Miller, Inc.

Table 2. Water-Level Elevations in Monitoring Wells, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		October 31-No	vember 2, 1984	January	2, 1985	
	Measuring					
Well	Point (1)	Depth to	Water Level	Depth to	Water Level	
esignation	Elevation	Water (2)	Elevation	Water	Elevation	
MW1A	430.07	20.77	409.3	18.6	411.47	
MW1B	429.82	19.62	410.2	17.4	412.42	
MW2A	430.77	20.47	410.3	17.6	413.17	
MW2B	430.70	18.20	412.5	15.0	415.70	
MW3	425.41	13.81	411.6	11.9	413.51	
MW4	427.33	7.23	420.1	6.6	420.73	
MW5	426.11	11.31	414.8	8.6	417.51	
MW6A	426.82	17.72	409.1	14.9	411.92	
MW6B	426.57			15.6	410.97	
MW7A	422.18	29.78	392.4	24.0	398.18	
MW7B	422.54	29.24	393.3	23.8	398.74	
MW8A	423.70	32.40	391.3	24.6	399.10	
MW8B	423.67	22.97	400.7	22.4	401.27	
MW9	424.92	20.42	404.5	16.6	408.32	
MW10	425.19	21.39	403.8	16.5	408.69	
MW11A	426.20	12.30	413.9	11.4	414.80	
MW11B	426.35	12.55	413.8	11.7	414.65	
MW11C	426.23			11.4	414.83	
MW12	424.03			7.7	416.33	
MW13	425.98			11.1	414.88	
MW14	425.92		••	3.8	422.12	
MW15	426.63		••	12.1	414.53	
MW16	421.15		••	8.7	412.45	
MW17	420.52	••		11.2	409.32	
MW18A	423.17			24.1	399.07	
MW18B	423.06			10.1	412.96	
MW19	424.11			10.3	413.81	
MW20	423.27			8.9	414.37	

¹⁾ Elevation in feet above mean sea level.

²⁾ Depth to water in feet below measuring point.

Table 2. Water-Level Elevations in Monitoring Wells, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		February 27-	28, 1985	March 27-	29, 1985	April 17-24, 1985		
0.0 10000	Measuring							
Well Designation	Point (1) Elevation	Depth to	Water Level Elevation	Depth to	Water Level	Depth to	Water Level	
besignation	Elevation	Water (2)	Elevation	Water	Elevation	Water	Elevation	
MW1A	430.07	18.5	411.57	18.3	411.77	16.2	413.87	
MW1B	429.82	15.7	414.12	16.2	413.62	16.8	413.02	
MW2A	430.77	17.4	413.37	17.4	413.37	16.0	414.77	
MW2B	430.70	15.5	415.20	15.2	415.50	14.0	416.70	
MW3	425.41	12.4	413.01	12.3	413.11	18.6	406.81	
MW4	427.33	7.4	419.93	7.0	420.33	9.2	418.13	
MW5	426.11	9.1	417.01	8.7	417.41	9.4	416.71	
MW6A	426.82	15.9	410.92	15.1	411.72	13.3	413.52	
MW6B	426.57	15.2	411.37	15.1	411.47	13.2	413.37	
MW7A	422.18	21.1	401.08	21.8	400.38	19.7	402.48	
MW7B	422.54	21.2	401.34	21.0	401.54	19.1	403.44	
MW8A	423.70	23.3	400.40	23.4	400.30	22.6	401.10	
MW8B	423.67	19.9	403.77	20.1	403.57	20.3	403.37	
MW9	424.92	14.6	410.32	15.1	409.82	16.1	408.82	
MW10	425.19	15.5	409.69	16.0	409.19	20.3	404.89	
MW11A	426.20	11.2	415.00	11.9	414.30	11.2	415.00	
MW11B	426.35	11.3	415.05	11.6	414.75	11.8	414.55	
MW11C	426.23	11.2	415.03	11.6	414.63	11.1	415.13	
MW12	424.03	8.4	415.63	8.0	416.03	8.2	415.83	
MW13	425.98	10.7	415.28	10.9	415.08	10.9	415.08	
MW14	425.92	7.6	418.32	5.4	420.52	3.1	422.82	
MW15	426.63	12.0	414.63	12.2	414.43	12.9	413.73	
MW16	421.15	8.1	413.05	8.0	413.15	7.7	413.45	
MW17	420.52	9.2	411.32	9.0	411.52	7.5	413.02	
MW18A	423.17	20.5	402.67	20.1	403.07	20.5	402.67	
MW18B	423.06	10.4	412.66	10.5	412.56	9.8	413.26	
MW19	424.11	10.3	413.81	10.2	413.91	10.8	413.31	
MW20	423.27	8.7	414.57	8.6	414.67	8.1	415.17	

¹⁾ Elevation in feet above mean sea level.

²⁾ Depth to water in feet below measuring point.

Table 2. Water-Level Elevations in Monitoring Wells, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		May 22-	23, 1985	June 11-1	12, 1985	July 16-2	23, 1985
	Measuring						
Well	Point (1)	Depth to	Water Level	Depth to		Depth to	Water Level
Designation	Elevation	Water (2)	Elevation	Water	Elevation	Water	Elevation
MW1A	430.07	16.9	413.17	16.2	413.87	19.2	410.87
MW1B	429.82	15.1	414.72	14.8	415.02	18.7	411.12
MW2A	430.77	16.3	414.47	16.9	413.87	18.4	412.37
MW2B	430.70	16.0	414.70	14.2	416.50	16.6	414.10
MW3	425.41	11.9	413.51	10.9	414.51	12.1	413.31
MW4	427.33	9.2	418.13	8.7	418.63	8.7	418.63
MW5	426.11	9.1	417.01	9.3	416.81	8.9	417.21
MW6A	426.82	14.0	412.82	14.1	412.72	16.4	410.42
MW6B	426.57	13.8	412.77	13.3	413.27	15.5	411.07
MW7A	422.18	19.0	403.18	19.1	403.08	29.5	392.68
MW7B	422.54	20.1	402.44	19.0	403.54	29.0	393.54
A8WM	423.70	22.7	401.00	22.0	401.70	31.9	391.80
MW8B	423.67	20.4	403.27	20.9	402.77	30.0	393.67
MW9	424.92	16.3	408.62	15.8	409.12	19.6	405.32
MW10	425.19	18.9	406.29	17.0	408.19	29.3	395.89
MW11A	426.20	11.9	414.30	11.8	414.40	11.5	414.70
MW11B	426.35	11.8	414.55	11.5	414.85	11.7	414.65
MW11C	426.23	11.7	414.53	11.0	415.23	11.5	414.73
MW12	424.03	8.0	416.03	8.1	415.93	8.4	415.63
MW13	425.98	10.8	415.18	10.5	415.48	11.2	414.78
MW14	425.92	5.4	420.52	4.3	421.62	4.8	421.12 ~
MW15	426.63	12.7	413.93	12.5	414.13	13.8	412.83
MW16	421.15	7.6	413.55	7.6	413.55	8.8	412.35
MW17	420.52	7.5	413.02	8.0	412.52	11.3	409.22
MW18A	423.17	20.6	402.57	20.2	402.97	30.6	392.57
M₩18B	423.06	9.6	413.46	9.4	413.66	10.5	412.56
MW19	424.11	10.2	413.91	10.0	414.11	10.3	413.81
MW20	423.27	8.7	414.57	8.3	414.97	8.9	414.37

¹⁾ Elevation in feet above mean sea level.

²⁾ Depth to water in feet below measuring point.

Table 2. Water-Level Elevations in Monitoring Wells, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		August 14, 1985		Septembe	r 17, 1985	October 24-31, 1985		
	Measuring							
Well	Point (1)	Depth to	Water Level	Depth to	Water Level	Depth to	Water Level	
Designation	Elevation	Water (2)	Elevation	Water	Elevation	Water	Elevation	
MW1A	430.07	17.5	412.57	17.2	412.87	18.9	411.17	
MW1B	429.82	16.9	412.92	17.0	412.82	19.8	410.02	
MW2A	430.77	18.0	412.77	17.4	413.37	18.6	412.17	
MW2B	430.70	16.0	414.70	15.8	414.9	17.7	413.00	
MW3	425.41	12.2	413.21	11.8	413.61	12.9	412.51	
MW4	427.33	8.9	418.43	8.6	418.73	8.9	418.43	
MW5	426.11	8.9	417.21	8.8	417.31	12.2	413.91	
MW6A	426.82	15.0	411.82	15.6	411.22	15.7	411.12	
MW6B	426.57	15.5	411.07	15.6	410.97	15.0	411.57	
MW7A	422.18	26.4	395.78	24.8	397.38	22.5	399.68	
MW7B	422.54	27.8	394.74	26.7	395.84	22.2	400.34	
MW8A	423.70	30.4	393.30	28.6	395.10	25.2	398.50	
MW8B	423.67	27.8	395.87	26.2	397.47	23.2	400.47	
MW9	424.92	19.5	405.42	18.4	406.52	17.1	407.82	
MW10	425.19	26.6	398.59	24.3	400.89	22.4	402.79	
MW11A	426.20	11.7	414.50	11.6	414.60	11.2	415.00	
MW11B	426.35	11.7	414.65	11.7	414.65	11.4	414.95	
MW11C	426.23	11.2	415.03	10.9	415.33	12.1	414.13	
MW12	424.03	8.5	415.53	8.3	415.73	9.0	415.03	
MW13	425.98	10.9	415.08	11.1	414.88	12.0	413.98	
MW14	425.92	4.5	421.42	4.6	421.32	5.3	420.62	
MW15	426.63	13.7	412.93	12.9	413.73	14.1	412.53	
MW16	421.15	8.1	413.05	8.6	412.55	8.3	412.85	
MW17	420.52	10.6	409.92	11.0	409.52	10.3	410.22	
MW18A	423.17	26.9	396.27	24.2	398.97	22.8	400.37	
MW18B	423.06	10.0	413.06	9.9	413.16	10.7	412.36	
MW19	424.11	10.4	413.71	10.1	414.01	10.4	413.71	
MW20	423.27	8.8	414.47	9.0	414.27	8.5	414.77	

¹⁾ Elevation in feet above mean sea level.

²⁾ Depth to water in feet below measuring point.

Table 2. Water-Level Elevations in Monitoring Wells, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

	November 27, 1985			December	30, 1985	February 14, 1986		
	Measuring							
Well	Point (1)	Depth to	Water Level	Depth to	Water Level	Depth to	Water Level	
Designation	Elevation	Water (2)	Elevation	Water	Elevation	Water	Elevation	
Designation		#ater (2)		water		water		
MW1A	430.07	19.5	410.57	19.6	410.47	20.1	409.97	
MW1B	429.82	20.1	409.72	20.2	409.62	22.6	407.22	
MW2A	430.77	19.3	411.47	19.0	411.77	19.9	410.87	
MW2B	430.70	17.9	412.80	18.4	412.30	19.0	411.70	
MW3	425.41	14.1	411.31	14.2	411.21	15.1	410.31	
MW4	427.33	9.8	417.53	9.8	417.53	10.8	416.53	
MW5	426.11	13.1	413.01	13.5	412.61	14.1	412.01	
MW6A	426.82	16.2	410.62	16.0	410.82	16.9	409.92	
MW6B	426.57	15.8	410.77	15.6	410.97	16.2	410.37	
MW7A	422.18	23.0	399.18	23.1	399.08	24.2	397.98	
MW7B	422.54	22.9	399.64	23.2	399.34	24.2	398.34	
ASWM	423.70	25.9	397.80	25.8	397.90	26.9	396.80	
MW8B	423.67	24.9	398.77	24.6	399.07	25.2	398.47	
MW9	424.92	18.1	406.82	18.3	406.62	19.8	405.12	
MW10	425.19	23.0	402.19	23.1	402.09	24.3	400.89	
MW11A	426.20	11.7	414.50	11.8	414.40	13.1	413.10	
MW11B	426.35	12.2	414.15	12.0	414.35	13.4	412.95	
MW11C	426.23	12.9	413.33	12.1	414.13	13.5	412.73	
MW12	424.03	9.0	415.03	8.9	415.13	10.2	413.83	
MW13	425.98	11.8	414.18	12.1	413.88	13.5	412.48	
MW14	425.92	6.0	419.92 -	6.0	419.92	7.4	418.52	
MW15	426.63	15.1	411.53	14.8	411.83	16.0	410.63	
MW16	421.15	9.4	411.75	9.2	411.95	10.4	410.75	
MW17	420.52	11.1	409.42	10.8	409.72	12.0	408.52	
MW18A	423.17	23.2	399.97	23.7	399.47	24.9	398.27	
MW18B	423.06	11.7	411.36	11.5	411.56	12.8	410.26	
MW19	424.11	10.4	413.71	10.6	413.51	11.8	412.31	
MW20	423.27	9.1	414.17	9.2	414.07	10.6	412.67	

¹⁾ Elevation in feet above mean sea level.

²⁾ Depth to water in feet below measuring point.

Table 2. Water-Level Elevations in Monitoring Wells, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		June 1	9, 1986	August 14	4, 1986	December	1, 1986
	Measuring						
Well Designation	Point (1) Elevation	Depth to Water (2)	Water Level Elevation	Depth to Water	Water Level Elevation	Depth to Water	Water Level Elevation
MW1A	430.07	20.2	409.87	20.0	410.07	18.18	411.89
MW1B	429.82	22.4	407.42	22.5	407.32	18.29	411.53
MW2A	430.77	20.0	410.77	20.0	410.77	17.66	413.11
MW2B	430.70	19.1	411.60	19.1	411.60	16.29	414.41
MW3	425.41	15.0	410.41	15.1	410.31	13.43	411.98
MW4	427.33	10.8	416.53	10.7	416.63	8.60	418.73
MW5	426.11	14.2	411.91	14.2	411.91	11.28	414.83
MW6A	426.82	16.9	409.92	16.8	410.02	16.69	410.13
MW6B	426.57	16.4	410.17	16.4	410.17	14.42	412.15
MW7A	422.18	24.6	397.58	24.4	397.78	21.04	401.14
MW7B	422.54	24.2	398.34	24.2	398.34	20.70	401.84
ASWM	423.70	26.8	396.90	26.8	396.90	23.83	399.87
MW8B	423.67	25.4	398.27	25.4	398.27	23.03	400.64
MW9	424.92	20.0	404.92	19.9	405.02	18.61	406.31
MW10	425.19	24.4	400.79	24.5	400.69	23.88	401.31
- MW11A	426.20	13.0	413.20	13.0	413.20	10.99	415.21
MW11B	426.35	13.5	412.85	13.3	413.05	13.26	413.09
MW11C	426.23	13.5	412.73	13.6	412.63	11.38	414.85
MW12	424.03	10.4	413.63	10.3	413.73	6.89	417.14
MW13	425.98	13.6	412.38	13.7	412.28	10.69	415.29
MW14	425.92	7.5	418.42	7.3	418.62	3.83	422.09
MW15	426.63	16.1	410.53	16.0	410.63	8.30	418.33
MW16	421.15	10.3	410.85	10.4	410.75		••
MW17	420.52	11.9	408.62	12.0	408.52	19.71	400.81
MW18A	423.17	25.2	397.97	25.0	398.17	22.45	400.72
MW18B	423.06	12.9	410.16	12.9	410.16	7.76	415.30
MW19	424.11	11.9	412.21	11.9	412.21	11.7	412.41
MW20	423.27	10.5	412.77	10.5	412.77	8.09	415.18
GM-1*	425.51					9.08	416.43
GM-2	425.46					8.94	416.52
GM-3	427.48					5.30	422.18
GM-4	424.28					2.05	422.23
GM-5	424.53					2.58	421.95

¹⁾ Elevation in feet above mean sea level.

²⁾ Depth to water in feet below measuring point.

^{*} GM series wells installed in November, 1986. Water-level measurements were only collected in December 1986.

Table 2. Water-Level Elevations in Monitoring Wells, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		March 18,	1987	June 24	4, 1987	September 23, 1987		
	Measuring							
Well	Point (1)	Depth to	Water Level	Depth to	Water Level	Depth to	Water Level	
Designation	Elevation	Water (2)	Elevation	Water	Elevation	Water	Elevation	
MW1A	430.07	18.4	411.67	19.8	410.27	18.3	411.77	
MW1B	429.82	18.6	411.22	19.7	410.12	18.9	410.92	
MW2A	430.77	16.8	413.97	12.1	418.67	13.0	417.77	
MW2B	430.70	16.3	414.40	11.2	419.50	11.4	419.30	
MW3	425.41	13.5	411.91	14.1	411.31	13.0	412.41	
MW4	427.33	8.0	419.33	8.0	419.33	8.2	419.13	
MW5	426.11	14.7	411.41	18.0	408.11	17.4	408.71	
MW6A	426.82	16.8	410.02	18.2	408.62	17.0	409.82	
MW6B	426.57	15.7	410.87	22.2	404.37	17.8	408.77	
MW7A	422.18	21.8	400.38	22.4	399.78	22.0	400.18	
MW7B	422.54	22.3	400.24	26.5	396.04	22.7	399.84	
ASWM	423.70	25.4	398.30	26.5	397.20	25.1	398.60	
MW8B	423.67	22.5	401.17	9.7	413.97	15.3	408.37	
MW9	424.92	21.9	403.02	26.6	398.32	23.0	401.92	
MW10	425.19	20.8	404.39	10.8	414.39	18.2	406.99	
MW11A	426.20	11.5	414.70	10.2	416.00	11.4	414.80	
MW11B	426.35	12.9	413.45	10.9	415.45	11.1	415.25	
MW11C	426.23	11.3	414.93	7.6	418.63	8.8	417.43	
MW12	424.03	8.2	415.83	10.2	413.83	10.2	413.83	
MW13	425.98	9.8	416.18	7.7	418.28	8.4	417.58	
MW14	425.92	5.0	420.92	10.2	415.72	9.5	416.42	
MW15	426.63	8.4	418.23	7.6	419.03	8.2	418.43	
MW16	421.15	11.8	409.35	13.0	408.15	12.9	408.25	
MW17	420.52	13.7	406.82	31.1	389.42	14.8	405.72	
MW18A	423.17	20.5	402.67	10.3	412.87	18.7	404.47	
MW18B	423.06	8.3	414.76	11.0	412.06	12.9	410.16	
MW19	424.11	10.9	413.21	8.2	415.91	10.4	413.71	
MW20	423.27	9.3	413.97	11.0	412.27	10.5	412.77	

¹⁾ Elevation in feet above mean sea level.

²⁾ Depth to water in feet below measuring point.

Table 2. Water-Level Elevations in Monitoring Wells, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

November 17, 1987

	Measuring		
Well	Point (1)	Depth to	Water Level
Designation	Elevation	Water (2)	Elevation
			•••••
MW1A	430.07	18.1	411.97
MW1B	429.82	18.4	411.42
MW2A	430.77	12.7	418.07
MW2B	430.70	11.0	419.70
MW3	425.41	12.8	412.61
MW4	427.33	8.6	418.73
MW5	426.11	16.9	409.21
MW6A	426.82	16.4	410.42
MW6B	426.57	16.9	409.67
MW7A	422.18	21.4	400.78
MW7B	422.54	20.0	402.54
ASWM	423.70	23.9	399.80
MW8B	423.67	18.7	404.97
MW9	424.92	20.1	404.82
MW10	425.19	17.1	408.09
MW11A	426.20	10.9	415.30
MW11B	426.35	11.7	414.65
MW11C	426.23	10.3	415.93
MW12	424.03	11.1	412.93
MW13	425.98	9.9	416.08
MW14	425.92	8.8	417.12
MW15	426.63	7.7	418.93
MW16	421.15	11.3	409.85
MW17	420.52	13.1	407.42
MW18A	423.17	17.4	405.77
MW18B	423.06	13.1	409.96
MW19	424.11	11.3	412.81
MW20	423.27	9.1	414.17

1) Elevation in feet above mean sea level.

²⁾ Depth to water in feet below measuring point.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW1A	MW1A	MW1A	MW1A	MW1A	MW1A	MW1A	MW1B	MW1B	MW1
Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	4/84	8/84	10/8
JSEPA Priority Pollutant										
/olatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	NI NI
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chlorobenzene	ND	ND	ND	ND	ND	ND	<6.0	ND	ND	N
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N N
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroform	ND	ND	ND	14	ND	ND	ND	ND	ND	N
oichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
oichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
is-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methylene chloride	21	ND	9	19	ND	ND	<2.8	20	56	
,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
etrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
oluene	1	3	ND	ND	ND	ND	<6.0	ND	ND	0.
,2-trans-Dichloroethylene	ND	ND	0.4	ND	ND	ND	ND	ND	ND	N
,1,1-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	N
,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
richloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
richlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
/inyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
•••		• • • • • • • • • • • • • • • • • • • •							• • • • • • • •	

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW1B	MW1B	MW1B	MW1B	MW2A	MW2A	MW2A	MW2A	MW2A	MW2
Date: USEPA Priority Pollutant	1/85	4/85	7/85	10/85	4/84	8/84	10/84	1/85	4/85	7/85
/olatile Organic Compounds										
(Concentrations are in ug/L)										
		• • • • • • • • • • • • • • • • • • • •							• • • • • • • • • • • • • • • • • • • •	
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Benzene	ND	ND	ND	ND	ND	2	ND	ND	ND	N
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chlorobenzene	ND	ND	ND	ND	ND	61	ND	ND	ND	N
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroform	ND	ND	ND	ND	ND	ND	0.4	ND	ND	N
oichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
oichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
is-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
rans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
thylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methylene chloride	20	ND	8.22	11.6	52	13	14	ND	ND	N
,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
etrachloroethylene	ND	ND	ND	ND	ND	ND	0.8	ND	ND	N
oluene	ND	ND	ND	ND	2	2	0.5	ND	ND	N
,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
richloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
richlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
/inyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
		• • • • • • • • • • • • • • • • • • • •							• • • • • • • • •	

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW2A	MW2A	MW2B	MW2B	MW2B	MW2B	MW2B	MW2B	MW2B	MW3
Date:	10/85	12/86	4/84	8/84	10/84	1/85	4/85	7/85	10/85	4/84
SEPA Priority Pollutant										
olatile Organic Compounds										
Concentrations are in ug/L)										
crolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
crylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	184
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NE
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NC
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	NE
oichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
oichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NE
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
thylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	NC
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	<2.8	10.9	40	6	6	32	ND	ND	7.54	17
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	
retrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene	ND	ND	ND	ND	0.5	ND	ND	ND	ND	
1,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	48
1,1,1-Trichloroethane	ND	ND	1	ND	ND	ND	ND	ND	ND	N
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	NO
richlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	7
/inyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	56
Total VOCs Analyzed		10.9	41	6	6.5	32.0	0	0	7.5	76

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

7/85 ND ND S44 ND ND	10/85	4/84 ND ND	8/84 	10/84	1/85
ND <44 ND	ND		ND		
ND <44 ND	ND		ND		
ND <44 ND	ND		ND		
ND <44 ND	ND		ND		
ND <44 ND	ND		NU		ND
<44 ND			ND	ND ND	ND
ND		6	9		ND
	ND			ND	ND
ND	ND	ND	ND	ND	ND
NB	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND
3,180	7,380	41,400	471	1	753
ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND
ND	ND	12	ND	ND	ND
ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND
ND	ND	ND	17	8	ND
<28	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND
<72	ND	2	ND	ND	ND
ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND
74.0	15,600	43	2	6	30
ND	ND	ND	ND	ND	ND
146	ND	1	ND	ND	ND
<60	ND	2	21	0.4	ND
7,120	7,840	3	ND	ND	ND
<38	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND
3,550	6,620	ND	ND	1	ND
-	ND	ND	ND	ND	ND
ND	<2,500	ND	ND	ND	ND
	<38	<38 ND ND 3,550 6,620 ND ND 1,050 <2,500	<38 ND ND ND ND ND 3,550 6,620 ND ND ND ND 1,050 <2,500 ND	<38 ND	<38 ND

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW4	MW4	MW4	MW4	MW4	MW5	MW5	MW5	MW5	MW
Date:	4/85	7/85	10/85	10/85*	12/86	4/84	8/84	10/84	1/85	4/8
JSEPA Priority Pollutant										
/olatile Organic Compounds										
(Concentrations are in ug/L)										
	• • • • • • • • • • • • • • • • • • • •			• • • • • • • • • • • • • • • • • • • •						
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Benzene	14.5	ND	ND	ND	<44	ND	ND	ND	ND	N
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chlorobenzene	7,943.8	7,070	4,220	4,170	2,680	259	ND	ND	ND	N
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroethane	ND	ND	ND	. ND	ND	ND	ND	ND	ND	N
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND)
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloroethane	9.2	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	ND	1	ND	ND	ND)
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND)
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Methylene chloride	2.8	ND	762	ND	ND	13	2	7	53	
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Toluene	ND	ND	ND	ND	ND	1	ND	0.6	ND	1
1,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	2	ND	ND	ND	
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
/inyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	1

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW5	MW5	MW5	MW6A	MW6A	MW6A	MW6A	MW6A	MW6A	MW6A
Date:	7/85	10/85	12/86	4/84	8/84	10/84	1/85	4/85	7/85	10/85
USEPA Priority Pollutant										
Volatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	449	272	99	ND	176.3	ND	218
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	<6.0	42,900	186	1,678	ND	36,580	28,900	53,700
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	ND	ND	ND	ND .	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	1,040	ND	ND	4	ND	ND	ND
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	<4.7	ND	4	ND	6.4	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	3.7	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	494	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND -	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	26	ND	ND	54.6	ND	82.6
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	9.10	ND	<2.8	36,800	26	8	ND	18.4	24,600	29.4
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	<6.0	ND	27,700	81	NA	ND	14,780	41,100	10,300
1,2-trans-Dichloroethylene	ND	<1.6	ND	ND	5	175	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	1,090	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND	3.5	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	6	119	ND	ND	ND	ND
Total VOCs Analyzed	9.1	0	0	109,979	606	2,079	511.6	51,609.3	94,600	64,330

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

MW7A MW7A Well Designation: MW6A MW6B MW6B MW6B MW6B MW7A MW7A MW7A 10/85* 1/85 4/85 7/85 10/85 4/84 8/84 10/84 1/85 4/85 Date: USEPA Priority Pollutant Volatile Organic Compounds (Concentrations are in ug/L) Acrolein ND Acrylonitrile ND 202 ND 8.4 8.12 ND 29 80 53 19 58.3 Benzene Bis (chloromethyl) ether ND ND ND ND ND ND ND ND ND **Bromoform** ND Carbon tetrachloride ND 1,120 1,620 1,740 558 Chlorobenzene 45,200 1,627.6 257 1,038 800 1,185.9 Chlorodibromomethane ND Chloroethane ND 2-Chloroethylvinyl ether ND Chloroform ND ND ND ND ND 8 2 ND ND ND Dichlorobromomethane ND Dichlorodifluoromethane ND 1,1-Dichloroethane ND ND ND ND ND 1,2-Dichloroethane ND ND ND ND ND 15 39 19 13 44 1,1-Dichloroethylene ND 1,2-Dichloropropane ND cis-1,3-Dichloropropylene ND ND ND ND ND ND ND ND ND trans-1,3-Dichloropropylene ND Ethylbenzene 74.6 ND <7.2 <7.2 ND 2 9 ND 8.4 Methyl bromide ND Methyl chloride ND Methylene chloride <28 ND ND ND <28 19 5 116 18 16.6 1,1,2,2-Tetrachloroethane ND Tetrachloroethylene ND ND ND ND ND 2 6 ND 6.5 Toluene 7,890 ND ND ND 7 5 <6.0 ND ND 6.5 1,2-trans-Dichloroethylene 23 22 ND 14 ND <1.6 ND ND ND 15 2 1,1,1-Trichloroethane ND ND ND ND ND ND ND ND ND 1,1,2-Trichloroethane ND ND ND ND ND 3 ND ND ND ND Trichloroethylene ND ND ND ND ND 2 2 ND ND Trichlorofluoromethane ND Vinyl chloride ND ND ND ND ND 152 302 68 24 125.3 1,120 Total VOCs Analyzed 53,366.6 1,636 1,628.1 1,740 514 1,625 979 632 1,466.5

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

______ Well Designation: MW7A MW7A MW7A MW7B MW7B MW7B MW7B MW7B MW7B MW7B Date: 7/85 10/85 12/86 4/84 8/84 10/84 1/85 4/85 7/85 10/85 USEPA Priority Pollutant Volatile Organic Compounds (Concentrations are in ug/L) ND ND ND ND ND ND ND ND Acrolein ND Acrylonitrile 5 52.9 <88 14 ND 4.9 ND ND Benzene 151 6 Bis (chloromethyl) ether ND Bromoform Carbon tetrachloride ND Chlorobenzene 1,590 1,710 1,240 ND 363 239 251 157.2 85.8 244 Chlorodibromomethane ND Chloroethane ND ND ND ND ND ND 2-Chloroethylvinyl ether ND ND ND ND ND ND ND ND ND 388.9 408 825 455 110 812 Chloroform ND ND ND 41 Dichlorobromomethane ND Dichlorodifluoromethane ND 1,1-Dichloroethane ND ND ND ND ND ND ND ND ND 1,2-Dichloroethane ND ND ND ND ND ND 1,1-Dichloroethylene ND 1,2-Dichloropropane ND cis-1,3-Dichloropropylene ND ND ND ND ND ND ND ND ND trans-1,3-Dichloropropylene ND ND ND ND Ethylbenzene ND ND <140 ND ND ND <7.2 ND ND ND Methyl bromide ND ND ND ND ND ND ND Methyl chloride ND 110 ND ND 19 55 8 ND ND 19.8 68.0 Methylene chloride ND ND 1,1,2,2-Tetrachloroethane ND Tetrachloroethylene 64.1 ND <120 1 19 ND ND ND ND ND Toluene ND ND ND ND ND ND ND ND ND 1,2-trans-Dichloroethylene ND 1,1,1-Trichloroethane 1 ND ND ND ND ND ND 1,1,2-Trichloroethane ND ND ND ND

Trichloroethylene

Vinyl chloride

Trichlorofluoromethane

Total VOCs Analyzed

ND

ND

<100

1,817

ND

ND

ND

1,861

ND

ND

ND

1,240

ND

ND

ND

68

ND

ND

ND

859

ND

ND

ND

1,077

ND

ND

ND

706

ND

ND

ND

551

ND

ND

ND

215.6 1,124.0

ND

ND

ND

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

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					M 10 A	M 10 A	MI 10 A	MI 10 A	MI 10 A	M 10 A
Well Designation:	MW7B	A8WM	MW8A	MW8A	MW8A 1/85	MW8A	MW8A 7/85	MW8A 10/85	MW8A 12/86	MW8A 12/86*
Date:	12/86	4/84	8/84	10/84	1/05	4/85	1/65	10/65	12/00	12/00"
USEPA Priority Pollutant										
Volatile Organic Compounds (Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	<4.4	106	224	106	ND	173.7	ND	148	ND	ND
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	<44
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	78.3	15,150	183	1,925	10,400	16,079.4	38,300	8,820	1,100	2,470
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	193	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	1	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropylene	ND	11 (a)	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	10	b)	ND	ND	ND	ND	ND	ND
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	29.3	18	3	8	356	54	ND	ND	ND	96.2
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	2	2	b)	ND	ND	ND	ND	ND	ND
1,2-trans-Dichloroethylene	ND	17	18	12	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NC
Vinyl chloride	ND	ND	79	6	ND	135.1	ND	ND	ND	NC
Total VOCs Analyzed	300.6	15,304	520	2,057	10.756	16,442.2	38,300	8,968	1,100	2,566.2

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

	=======		=======			=======	=======	=======		======
Well Designation:	MW8B	MW8B	MW8B	MW8B	MW8B	MW8B	MW8B	MW8B	MW9	MW9
Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	12/86	4/84	8/84
USEPA Priority Pollutant										
Volatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1	48	ND	ND	ND	ND	ND	ND	ND	27
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	37	2	5	15	ND	11.2	<2.8	<2.8	41	1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	1	ND
1,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND

0

0

ND

43

ND

28

Vinyl chloride

Total VOCs Analyzed

ND

38

50

5

15

11.2

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW9	MW9	MW9	MW9	MW9	MW9	MW10	MW10	MW10	MW1
Date:	10/84	1/85	4/85	7/85	10/85	12/86	4/84	8/84	10/84	1/8
SEPA Priority Pollutant										
/olatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chlorobenzene	ND	ND	ND	ND	23.4	ND	ND	22	ND	N
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroethane	ND	ND	ND	ND	ND	ND	2	ND	ND	1
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methylene chloride	6	16	ND	ND	10.9	ND	60	9	6	4
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene	ND	ND	ND	ND	<6.0	ND	1	ND	0.7	1
1,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichlorofluoromethane	ND	ND	ND	<10.0	ND	ND	ND	ND	ND	1
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
		·····					······		·····	
Total VOCs Analyzed	6	16	0	0	34.3	0	63	31	6.7	4

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Date: 4/85 7/85 USEPA Priority Pollutant Volatile Organic Compounds (Concentrations are in ug/L)	ND N	ND N	4/84 ND	8/84 ND	ND N	1/85 ND	4/85 ND	7/85
Volatile Organic Compounds (Concentrations are in ug/L) Acrolein ND ND Acrylonitrile ND ND Benzene ND ND ND Bromoform ND ND Carbon tetrachloride ND ND Chlorobenzene ND ND Chloroethane ND ND Chloroethane ND ND Chloroform ND ND Chloroethoromomethane ND ND Chloroform ND ND Chloroethylvinyl ether ND ND Chloroform ND ND Chloroform ND ND Chloroform ND ND Chloroform ND ND Chloroethylvinyl ether ND ND Chloroform ND ND Chloroethoromomethane ND ND Chloroethoromomethane ND ND Chloroform ND ND Chloroethoromomethane ND ND Chloroethoroethane ND ND Chloroethoroethane ND ND Chloroethoroethane ND ND Chloroethoroethane ND ND Chloroethoropropylene ND ND Chloroethoropropylene ND ND Chloroethoroethoroethane ND ND Chloroeth	ND N	ND N	ND N	ND ND ND ND 41 ND ND ND ND ND ND	ND N	ND N	ND ND ND ND ND ND ND ND ND	NI NI NI NI NI NI NI NI NI NI NI NI NI N
Acrolein ND	ND N	ND N	ND N	ND ND ND ND 41 ND ND ND ND ND ND	ND N	ND N	ND ND ND ND ND ND ND ND ND	NI NI NI NI NI NI NI NI NI NI NI NI NI N
Acrolein ND ND Acrylonitrile ND ND Acrylonitrile ND ND Benzene ND ND ND Bis (chloromethyl) ether ND ND ND Bromoform ND ND ND Carbon tetrachloride ND ND ND Chlorobenzene ND ND ND Chloroethane ND ND ND Chloroethane ND ND ND Chloroethylvinyl ether ND ND Chloroform ND ND Chloroform ND ND Chlorodifluoromethane ND ND Dichlorodifluoromethane ND ND Dichlorodifluoromethane ND ND 1,1-Dichloroethane ND ND 1,2-Dichloroethane ND ND 1,2-Dichloropropane ND ND Ethylbenzene ND ND Ethylbenzene ND ND Methyl chloride ND ND Methyl chloride ND ND Methylene ND ND	ND N	ND N	ND N	ND ND ND ND 41 ND ND ND ND ND ND	ND N	ND N	ND ND ND ND ND ND ND ND ND	NI NI NI NI NI NI NI NI NI NI NI NI NI N
Acrylonitrile ND	ND N	ND N	ND N	ND ND ND ND 41 ND ND ND ND ND ND	ND N	ND N	ND ND ND ND ND ND ND ND ND	NI NI NI NI NI NI NI NI NI NI NI NI NI N
Benzene ND ND Bromoform ND ND ND Chloroethane ND ND Chloroethane ND ND Chloroform ND ND Dichloroform ND ND Dichlorobromomethane ND ND Dichlorodifluoromethane ND ND Dichlorodifluoromethane ND ND Dichloroethane ND ND Dichloroethane ND ND Dichloroethylene ND ND Dichloropropane ND ND Dichloropropane ND ND Ethylbenzene ND ND Ethylbenzene ND ND Methyl chloride ND ND Methyl chloride ND ND Methylene ND ND	ND N	ND N	ND ND ND ND ND ND ND ND ND ND	ND ND ND 41 ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND	N N N N N N N N N N N N N N N N N N N
Bis (chloromethyl) ether ND ND Bromoform ND ND Bromoform ND ND Bromoform ND ND Carbon tetrachloride ND ND Chlorobenzene ND ND Chlorodibromomethane ND ND Chloroethylvinyl ether ND ND Chloroform ND ND Chloroform ND ND Chlorobromomethane ND ND Dichlorobromomethane ND ND Dichlorodifluoromethane ND ND 1,1-Dichloroethane ND ND 1,2-Dichloroethylene ND ND 1,2-Dichloropropane ND ND Chloropropane ND ND Chloroprop	ND N	ND ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND	ND ND 41 ND ND ND ND ND ND ND	ND N	ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND	N N N N N N N N
Bromoform ND ND Carbon tetrachloride ND ND Chlorobenzene ND ND Chloroethane ND ND Chloroethylvinyl ether ND ND Chloroform ND ND Chloroform ND ND Chlorodifluoromethane ND ND Dichlorodifluoromethane ND ND Dichlorodifluoromethane ND ND 1,1-Dichloroethane ND ND 1,2-Dichloroethane ND ND 1,2-Dichloropropane ND ND 1,2-Dichloropropane ND ND Edis-1,3-Dichloropropylene ND ND Chloroform ND ND MC Methyl bromide ND ND MC Methyl chloride ND ND Mc Methylene chloride ND ND Mc Tetrachloroethylene ND ND Mc Methylene chloride ND ND Mc Tetrachloroethylene ND ND Mc Tetrachloroethylene ND ND	ND N	ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND 41 ND	ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	N N N N N N N
Carbon tetrachloride ND ND Chlorobenzene ND ND Chlorodibromomethane ND ND Chloroethane ND ND Chloroethylvinyl ether ND ND Chloroform ND ND Chlorobromomethane ND ND Cichlorobromomethane ND ND Dichlorodifluoromethane ND ND 1,1-Dichloroethane ND ND 1,2-Dichloroethane ND ND 1,2-Dichloroethylene ND ND 1,2-Dichloropropane ND ND Cis-1,3-Dichloropropylene ND ND Ethylbenzene ND ND Ethylbenzene ND ND Methyl chloride ND ND Methylene chloride ND ND Methylene chloride ND ND Methylene chloride ND ND Tetrachloroethylene ND ND Tetrachloroethylene ND ND Tetrachloroethylene ND ND	ND N	ND N	ND ND ND ND ND ND ND ND	ND 41 ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	N N N N N N
Chlorobenzene ND ND Chlorodibromomethane ND ND Chloroethane ND ND 2-Chloroethylvinyl ether ND ND Chloroform ND ND Dichlorobromomethane ND ND Dichlorodifluoromethane ND ND 1,1-Dichloroethane ND ND 1,2-Dichloroethane ND ND 1,2-Dichloroethylene ND ND 1,2-Dichloropropane ND ND Cis-1,3-Dichloropropylene ND ND Ethylbenzene ND ND Ethylbenzene ND ND Methyl chloride ND ND Methylene chloride ND ND Methylene chloride ND ND Tetrachloroethylene ND ND Tetrachloroethylene ND ND	ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	41 ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND	N N N N N
Chlorodibromomethane ND ND Chloroethane ND ND C-Chloroethylvinyl ether ND ND Chloroform ND ND Dichlorobromomethane ND ND Dichlorodifluoromethane ND ND 1,1-Dichloroethane ND ND 1,2-Dichloroethane ND ND 1,2-Dichloroethylene ND ND 1,2-Dichloropropane ND ND 1,2-Dichloropropane ND ND Ethylbenzene ND ND Ethylbenzene ND ND MEthyl bromide ND ND Methyl chloride ND ND Methylene chloroethylene ND ND Methylene chloroethylene ND ND Methylene ND ND Methylene ND ND Methylene ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	N N N N N N N N N N N N N N N N N N N
Chloroethane ND ND 2-Chloroethylvinyl ether ND ND Chloroform ND ND Dichlorobromomethane ND ND Dichlorodifluoromethane ND ND 1,1-Dichloroethane ND ND 1,2-Dichloroethane ND ND 1,2-Dichloroethylene ND ND 1,2-Dichloropropane ND ND 1,2-Dichloropropane ND ND Ethylbenzene ND ND Ethylbenzene ND ND Ethylbenzene ND ND Ethyl chloride ND ND Methyl chloride ND ND Methyl chloride ND ND Methylcheroproptene ND ND Methyl chloride ND ND Methylcheroproptene ND ND Methylcheropropene ND ND Methyl chloride ND ND Methylcheropropene ND ND	ND ND ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	N N N N
2-Chloroethylvinyl ether ND ND Chloroform ND ND Dichlorobromomethane ND ND Dichlorodifluoromethane ND ND 1,1-Dichloroethane ND ND 1,2-Dichloroethane ND ND 1,1-Dichloroethylene ND ND 1,2-Dichloropropane ND ND 1,2-Dichloropropane ND ND Ethylbenzene ND ND Ethylbenzene ND ND MC Methyl chloride ND ND MC Methyl chloride ND ND MC Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND	ND ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND	ND ND ND ND ND	ND ND ND ND ND	ND ND ND ND ND	N N N N
Chloroform ND ND Dichlorobromomethane ND ND Dichlorodifluoromethane ND ND 1,1-Dichloroethane ND ND 1,2-Dichloroethane ND ND 1,1-Dichloroethylene ND ND 1,2-Dichloropropane ND ND 1,2-Dichloropropane ND ND Eis-1,3-Dichloropropylene ND ND Ethylbenzene ND ND Methyl bromide ND ND Methyl chloride ND ND Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND	ND ND ND ND ND ND	ND ND ND ND ND	ND ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	N N N
Dichlorobromomethane ND ND Dichlorodifluoromethane ND ND 1,1-Dichloroethane ND ND 1,2-Dichloroethane ND ND 1,1-Dichloroethylene ND ND 1,2-Dichloropropane ND ND 1,2-Dichloropropane ND ND Edis-1,3-Dichloropropylene ND ND Ethylbenzene ND ND Ethylbenzene ND ND Methyl bromide ND ND Methyl chloride ND ND Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND	ND ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND	N N
Dichlorodifluoromethane ND	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND ND	N
I,1-Dichloroethane ND ND I,2-Dichloroethane ND ND I,1-Dichloroethylene ND ND I,2-Dichloropropane ND ND cis-1,3-Dichloropropylene ND ND trans-1,3-Dichloropropylene ND ND Ethylbenzene ND ND MC Methyl bromide ND ND Mc Methyl chloride ND ND Mc Methylene chloride 22.8 15.0 I,1,2,2-Tetrachloroethane ND ND Mc Metrachloroethylene ND ND	ND ND ND	ND ND ND	ND ND ND	ND ND	ND ND	ND ND	ND ND	N
1,2-Dichloroethane ND ND 1,1-Dichloroethylene ND ND 1,2-Dichloropropane ND ND 1,2-Dichloropropylene ND ND 1,2-Dichloropropylene ND ND 1,3-Dichloropropylene ND ND 1,3-Dichloropropylene ND ND 1,1,3-Dichloropropylene ND ND 1,1,2,2-Tetrachloroethane ND ND 1,1,2,2-Tetrachloroethane ND ND 1,1,2,2-Tetrachloroethane ND ND 1,1,2,2-Tetrachloroethylene ND ND	ND ND ND	ND ND	ND ND	ND	ND	ND	ND	
1,1-Dichloroethylene ND ND 1,2-Dichloropropane ND ND cis-1,3-Dichloropropylene ND ND trans-1,3-Dichloropropylene ND ND Ethylbenzene ND ND Methyl bromide ND ND Methyl chloride ND ND Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND	ND ND	ND	ND					N
1,2-Dichloropropane ND ND cis-1,3-Dichloropropylene ND ND trans-1,3-Dichloropropylene ND ND Ethylbenzene ND ND Methyl bromide ND ND Methyl chloride ND ND Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND	ND			ND	NO			
cis-1,3-Dichloropropylene ND ND trans-1,3-Dichloropropylene ND ND Ethylbenzene ND ND Methyl bromide ND ND Methyl chloride ND ND Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND		ND	ND		NU	ND	ND	N
trans-1,3-Dichloropropylene ND ND Ethylbenzene ND ND Methyl bromide ND ND Methyl chloride ND ND Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND	ND		ND	ND	ND	ND	ND	N
Ethylbenzene ND ND Methyl bromide ND ND Methyl chloride ND ND Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND		ND	ND	ND	ND	ND	ND	N.
Methyl bromide ND ND Methyl chloride ND ND Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl chloride ND ND Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND	ND	ND	ND	ND	ND	ND	ND	N
Methylene chloride 22.8 15.0 1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND	ND	ND	ND	ND	ND	ND	ND	N
1,1,2,2-Tetrachloroethane ND ND Tetrachloroethylene ND ND	ND	ND	ND	ND	ND	ND	ND	N
Tetrachloroethylene ND ND	<2.8	12.6	ND	2	5	10	ND	N.
•	ND	ND	ND	ND	ND	ND	ND	N
Toluene ND ND	ND	ND	ND	ND	ND	ND	ND	N
	ND	ND	ND	1	0.4	ND	ND	
1,2-trans-Dichloroethylene ND ND	ND	ND	ND	ND	ND	ND	ND.	N
1,1,1-Trichloroethane ND ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2-Trichloroethane ND ND	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethylene ND ND	ND	ND	ND	ND	ND	ND	ND	1
Trichlorofluoromethane ND ND		ND	ND	ND	ND	ND	ND	ì
/inyl chloride ND ND	ND	NU		ND	ND	ND	ND	1

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

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Well Designation:	MW11A	MW11A	MW11B	MW11B	MW11B 10/84	MW11B 1/85	MW11B 4/85	MW11B 7/85	MW11B 10/85	MW11B 12/86
Date:	10/85	12/86	4/84	8/84	10/04	1/65	4/63	1/65	10/63	12/00
USEPA Priority Pollutant Volatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND.
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	4	1	ND	ND	ND	ND	ND
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	54.4	2.98	ND	4	5	49	ND	ND	3.39	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	1	ND	ND	ND	ND	ND
1,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs Analyzed	54.4	3	0	8	7	49	0	0	3.4	0

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW11C	MW11C	MW11C	MW11C	MW11C	MW12	MW12	MW12	MW12	MW12
Date:	1/85	4/85	7/85	10/85	12/86	1/85	4/85	7/85	10/85	12/86
SEPA Priority Pollutant										
/olatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chlorobenzene	ND	ND	ND	ND	<6.0	ND	ND	ND	ND	N
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
ichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
oichlorodifluoromethane	ND	ND	ND	ND	ND	29	18.2	<10.0	ND	23.
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methylene chloride	ND	ND	ND	ND	ND	12	8.8	<2.8	22.8	13.
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	٨
Trichloroethyl ene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
/inyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

=======================================	=======	========	=======	:=======	=======					
Well Designation:	MW13	MW13	MW13	MW13	MW13	MW14	MW14	. MW14	MW14	MW14
Date:	1/85	4/85	7/85	10/85	12/86	1/85	4/85	7/85	10/85	12/86
USEPA Priority Pollutant										
Volatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	5.7	ND	<4.4	<22	ND	ND	ND	ND	ND
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	33	1,640	1,295	342	1,140	48,000	140,544	132,000	163,000	110,000
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	343	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	ND	ND	ND	ND	ND	ND	780	ND	<2,800	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs Analyzed	33	1,645.7	1,295	342	1,140	48,343	141,324	132,000	163,000	110,000

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		=======		=======						======
Well Designation:	MW15	MW15	MW15	MW15	MW15	MW16	MW16	MW16	MW16	MW17
Date:	1/85	4/85	7/85	10/85	12/86	1/85	4/85	7/85	10/85	1/85
USEPA Priority Pollutant										
Volatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	NE
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	NE
Chlorobenzene	21	22.6	ND	ND	ND	31	46.8	46.7	38.2	1
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NE
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Methylene chloride	20	ND	<2.8	9.20	5.13	ND	<2.8	ND	20.2	19
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	19.4	NI
1,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	40.9	N
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NE
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NE

Trichloroethylene

Vinyl chloride

Trichlorofluoromethane

Total VOCs Analyzed

ND

ND

ND

41

ND

ND

ND

22.6

ND

ND

ND

0

ND

ND

ND

9.2

ND

ND

ND

5.1

ND

ND

ND

31

ND

ND

ND

46.8

ND

ND

ND

46.7

ND

ND

ND

118.7

ND

ND

ND

30

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW17	MW17	MW17	MW18A	MW18A	MW18A	MW18A	MW18A	MW18B	MW18B
Date:	4/85	7/85	10/85	1/85	4/85	7/85	10/85	12/86	1/85	4/85
USEPA Priority Pollutant	4/03	1705	10/65	1/05	4/03	1/65	10/03	12/00	1/03	4/65
Volatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	6.2	<440	121	13.7	ND	ND
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	11.6	<6.0	ND	63	126.5	5,380	1,750	193	ND	ND
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	<720	ND	ND	ND	ND
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	ND	4.8	ND	ND	ND	1,680	195	7.97	ND	6
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	<600	<60	<6.0	ND	ND
1,2-trans-Dichloroethylene	2.0	ND	ND	ND	15.2	ND	ND	<1.6	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	15.6	ND	ND	ND	ND	1.9
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs Analyzed	13.6	4.8	0	63	163.5	7,060	2,066	214.7	0	7.9

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Hall Basinssiss	MULTOR	MW18B	MI I 1 OP	MW19	MW19	MW19	MUIO	MW19	MW20	MI 13
Well Designation: Date:	MW18B 7/85	10/85	MW18B 12/86	1/85	4/85	7/85	MW19 10/85	12/86	1/85	MW2 4/8
JSEPA Priority Pollutant	1/65	10/03	12/00	1/65	4/03	1705	10/03	12/00	1/65	4/0
/olatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	N
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND)
Benzene	ND	<4.4	ND	24	60.3	ND	67.0	ND	ND	1
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chlorobenzene	ND	ND	ND	15,800	36,460	ND	43,700	ND	ND	1
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethane	ND	ND	ND	ND	5.8	ND	ND	<4.7	ND	1
1,2-Dichloroethane	ND	ND	ND	ND	4.6	ND	ND	ND	ND	1
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	I
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	- 1
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Methylene chloride	12.4	6.45	ND	ND	7	447	3.80	6.14	ND	4
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Toluene	ND	ND	ND	31	51.6	<6.0	25.3	ND	ND	1
1,2-trans-Dichloroethylene	ND	ND	ND	17	ND	ND	ND	ND	ND	1
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethylene	ND	ND	ND	ND	<1.9	ND	ND	ND	ND	
Trichlorofluoromethane	ND	ND	ND	ND	<10.0	ND	ND	ND	ND	1
Vinyl chloride	ND	ND	ND	99	97.9	ND	46.4	ND	ND	

ND Not Detected.

Total VOCs Analyzed

12.4

6.5

0 15,971 36,687.2

447 43,842.5

6.1

0

4.4

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

					========	=======		=======	=======	=======
				FIELD			FIELD			
Well Designation:	MW20	MW20	MW20	BLANK	XFB1	XFB1	BLANK	XFB2	XFB2	BLANK
Date:	7/85	10/85	12/86	7/85	10/85	12/86	7/85	10/85	12/86	10/84
USEPA Priority Pollutant				10.0	• 650					1000
Volatile Organic Compounds										
(Concentrations are in ug/L)										
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	<6.0	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	1.6	ND	ND	ND	ND	ND	ND
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl bromide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	7.74	ND	20.8	5.8	ND	4.14	ND	<2.8	8.32	20
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	<6.0	ND	ND	ND	ND	ND	1
1,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	<10.0	ND	ND	ND	ND	ND	ND
Total VOCs Analyzed	7.7	0	20.8	7.4	0	4.1	0	0	8.3	21

ND Not Detected.

^{*} Replicate Sample.

Table 3. Summary of Volatile Organic Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		LAB	LAB	LAB	METHOD	JAR	JAR
Well Designation:	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK
Date:	10/84	10/84	10/84	10/84	1/85	1/85	4/85
USEPA Priority Pollutant							
Volatile Organic Compounds							
(Concentrations are in ug/L)							
Acrolein	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND
Benzene	0.5	ND	ND	ND	ND	ND	ND
Bis (chloromethyl) ether	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	NE
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	NC
Chloroethane	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.4	ND	ND	ND	ND	ND	NE
Dichlorobromomethane	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	NE
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	NC
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND
Methyl bromide	ND	ND	ND	ND	ND	ND	ND
Methyl chloride	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	12	38	28	28	14	ND	NE
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND
Toluene	1	0.7	0.6	1	ND	ND	ND
1,2-trans-Dichloroethylene	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND
-					• • • • • • • • •		

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

	.========	=======				=======		=======
Well Designation:	MW1A	MW1A	MW1A	MW1A	MW1A	MW1A	MW1A	MW1B
Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	4/84
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	0	0	0	0	0	0	0

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

							=========	=======
Well Designation:	MW1B	MW1B	MW1B	MW1B	MW1B	MW1B	MW2A	MW2A
Date:	8/84	10/84	1/85	4/85	7/85	10/85	4/84	8/84
USEPA Priority Pollutant	0,04	10,04	1,05	4,03	1,05	10,05	4,04	0,04
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
(Concentrations are in ug/L)								
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	0	0	0	0	0	0	0

ND Not Detected.

Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

							=========	=======
Well Designation:	MW2A	MW2A	MW2A	MW2A	MW2A	MW2A	MW2B	MW2B
Date:	10/84	1/85	4/85	7/85	10/85	12/86	4/84	8/84
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	14.8	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	0	0	0	14.8	0	0	0

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

=======================================						========	========	=======
Well Designation:	MW2B	MW2B	MW2B	MW2B	MW2B	MW2B	MW3	MW3
Date:	10/84	1/85	4/85	7/85	10/85	12/86	4/84	8/84
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)		¥						
2-Chlorophenol	ND	ND	ND	ND	ND	ND	13	5
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	0	0	0	0	0	13	5

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		=========						=======
Well Designation:	MW3	MW3	MW3	MW3	MW3	MW4	MW4	MW4
Date:	10/84	1/85	4/85	7/85	10/85	4/84	8/84	10/84
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2-Chlorophenol	ND	ND	<3.3	8.21	19.3	ND	ND	2
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	0	0	8.2	19.3	0	0	2

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

				========			=========	=========	
	Well Designation:	MW4	MW4	MW4	MW4	MW4R	MW5	MW5	MW5
	Date:	1/85	4/85	7/85	10/85	10/85	4/84	8/84	10/84
	USEPA Priority Pollutant								
	Acid Extractable								
	Organic Compounds								
	(Concentrations are in ug/L)								
1	2-Chlorophenol	ND	32	34.0	ND	11.4	ND	ND	ND
8	2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
	4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
	2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
	4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
1	p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Ì	Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	Phenol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	Total Acid Compounds Analyzed	0	32	34	0	11.4	0	0	0

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

							=========	
Well Designation:	MW5	MW5	MW5	MW5	MW6A	MW6A	MW6A	MW6A
Date:	1/85	4/85	7/85	10/85	4/84	8/84	10/84	1/85
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2-Chlorophenol	ND	ND	ND	ND	19	ND	9	39
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND .	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	30	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	0	0	0	19	0	39	39

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW6A	MW6A	MW6A	MW6A	MW6B	MW6B	MW6B	MW6B
Date:	4/85	7/85	10/85	10/85*	1/85	4/85	7/85	10/85
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)							•	
2-Chlorophenol	17	35.9	55.4	20.1	ND	ND .	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	ND	<2.7	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	<42.4	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	13	31.3	2.83	3.00	6.1	8.5	<1.5	134
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	30	67.2	58.2	23.1	6.1	8.5	0	134

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		========		========				
Well Designation:	MW7A	MW7A	MW7A	MW7A	MW7A	MW7A	MW7A	MW7A
Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	12/86
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2-Chlorophenol	2	ND	1	5	4.2	18.1	ND	9.34
2,4-Dichlorophenol	7	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	17	8	ND	ND	ND	3.99	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	26	8	1	5	4.2	22.1	0.0	9.3

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

	=========							
Well Designation:	MW7B	MW7B	MW7B	MW7B	MW7B	MW7B	MW7B	MW7B
Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	12/86
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2 Chlorophonal	ND	2	103	21.9	25.8	16.3	56.3	ND
2-Chlorophenol		ND	76	264	46.5	125	ND	19.8
2,4-Dichlorophenol	ND							
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4 <mark>,6-Dinitro-o-cre</mark> sol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	.11	ND	ND	389	9.7	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	2	190	285.9	72.3	530.3	66	19.8

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

					========			=========	=======
	*								
	Well Designation:	MW8A	A8WM	A8WM	A8WM	A8WM	A8WM	MW8A	A8WM
	Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	12/86
	USEPA Priority Pollutant								
1	Acid Extractable								
	Organic Compounds								
	(Concentrations are in ug/L)								
1	2-Chlorophenol	93	9	24	8	17.3	27.3	39.5	<3.3
	2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
	4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
	2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
	4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
	p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND /
	Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	Phenol	ND	ND	ND	4	ND	10.4	10.7	ND
	2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	Total Acid Compounds Analyzed	93	9	24	12	17.3	37.7	50.2	0

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

	Well Designation: Date: USEPA Priority Pollutant	MW8A 12/86*	MW8B 4/84	M₩8B 8/84	MW8B 10/84	MW8B 1/85	MW8B 4/85	MW8B 7/85	MW8B 10/85
-	Acid Extractable Organic Compounds (Concentrations are in ug/L)								
1	2-Chlorophenol	3.72	ND	ND	ND	ND	ND	ND	ND
	2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
	4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
	2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
	4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
1	p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
	Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	Phenol	ND	ND	ND	ND	ND	ND	ND	7.83
-,	2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	Total Acid Compounds Analyzed	3.7	0	0	0	0	0	0	7.8

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

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Well Designation:	MW8B	MW9 4/84	MW9 8/84	MW9 10/84	MW9 1/85	MW9 4/85	MW9 7/85	MW9 10/85
Date: USEPA Priority Pollutant Acid Extractable Organic Compounds (Concentrations are in ug/L)	12/86	4/04	0/04	10/64	1765	4/05	(/65	10/65
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	0	0	0	0	0	0	0

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

						========	=========	=======
Well Designation:	MW9	MW10	MW10	MW10	MW10	MW10	MW10	MW10
Date:	12/86	4/84	8/84	10/84	1/85	4/85	7/85	10/85
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND ND
Pentachlorophenol	ND	ND	ND	2	ND	ND	ND	
Phenol	ND	ND	ND	_				ND
2,4,6-Trichlorophenol				ND	ND	ND	ND	ND
2,4,6-Trichtorophenot	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0		•					
Total Acid Compounds Analyzed	U	0	0	2	0	0	0	0

ND Not Detected.

Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW11A	MW11B						
Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	4/84
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2-Chlorophenol	ND							
2,4-Dichlorophenol	ND							
2,4-Dimethylphenol	ND							
4,6-Dinitro-o-cresol	ND							
2,4-Dinitrophenol	ND							
2-Nitrophenol	ND							
4-Nitrophenol	ND							
p-Chloro-m-cresol	ND							
Pentachlorophenol	ND							
Phenol	5	ND						
2,4,6-Trichlorophenol	ND							
Total Acid Compounds Analyzed	5	0	0	0	0	0	0	0

ND Not Detected.

Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

	Well Designation:	MW11B	MW11B	MW11B	MW11B	MW11B	MW11B	MW11C	MW11C
	Date:	8/84	10/84	1/85	4/85	7/85	10/85	1/85	4/85
	USEPA Priority Pollutant								
	Acid Extractable								
	Organic Compounds								
	(Concentrations are in ug/L)								
								•••••	
	2-Chlorophenol	ND							
	2,4-Dichlorophenol	ND							
	2,4-Dimethylphenol	ND							
ì	4,6-Dinitro-o-cresol	ND							
	2,4-Dinitrophenol	ND							
	2-Nitrophenol	ND							
	4-Nitrophenol	ND							
	p-Chloro-m-cresol	ND							
Ì	Pentachlorophenol	ND	1	ND	ND	ND	ND	ND	ND
	Phenol	ND							
	2,4,6-Trichlorophenol	ND							
	Total Acid Compounds Analyzed	0	1	0	0	0	0	0	0

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

						=========		========	=======
	Well Designation:	MW11C	MW11C	MW12	MW12	MW12	MW12	MW13	MW13
	Date:	7/85	10/85	1/85	4/85	7/85	10/85	1/85	4/85
	USEPA Priority Pollutant								
	Acid Extractable								
	Organic Compounds								
	(Concentrations are in ug/L)								
l.	2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
	4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
	2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
	4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
	p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
	Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	Phenol	ND	ND	ND	ND	ND	ND	ND	ND
	2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
	Total Acid Compounds Analyzed	0	0	0	0	0	0	0	0

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

			=========				========	
Well Designation: Date:	MW13 7/85	MW13 10/85	MW14 1/85	MW14 4/85	MW14 7/85	MW14 10/85	MW15 1/85	MW15 4/85
USEPA Priority Pollutant	1703	10/05	1/05	4/03	1703	10/05	1/65	4/63
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2-Chlorophenol	<3.3	ND	74	43.3	52.0	88.7	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	9.1	8.04	7.43	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
·								
Total Acid Compounds Analyzed	0	0	74	52.4	60	96.1	0	0

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

					========		=========	=======
Well Designation:	MW15	MW15	MW16	MW16	MW16	MW16	MW17	MW17
Date:	7/85	12/86	1/85	4/85	7/85	10/85	1/85	4/85
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2.01								
2-Chlorophenol	9.12	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND.	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	2.87	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	9.1	2.9	0	0	0	0	0	0

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW17	MW17	MW18A	MW18A	MW18A	MW18A	MW18A	MW18B
Date:	7/85	10/85	1/85	4/85	7/85	10/85	12/86	1/85
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
						• • • • • • • • • • • • • • • • • • • •		
2-Chlorophenol	ND	ND	ND	ND	7.34	ND	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	3.31	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	76.2	ND	ND	ND
Phenol	ND	ND	4	10	126	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	0	4	10	212.9	0	0	0

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

=======================================							=========	=======
Well Designation:	MW18B	MW18B	MW18B	MW18B	MW19	MW19	MW19	MW19
Date:	4/85	7/85	10/85	12/86	1/85	4/85	7/85	10/85
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2-Chlorophenol	ND	<3.9	ND	ND	81	166	84.1	83.1
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	1.66	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	0	0	1.7	81	166	84.1	83.1

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

				========	=========	=========		========
Well Designation: Date:	MW19 12/86	MW20 1/85	MW20 4/85	MW20 7/85	MW20 10/85	MW20 12/86	XFB1 10/85	XFB1 12/86
USEPA Priority Pollutant Acid Extractable Organic Compounds (Concentrations are in ug/L)								
2-Chlorophenol	14.7	ND	ND	ND	ND	<3.5	ND	7.09
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	14.7	0	0	0	0	0	0	7.1

ND Not Detected.

^{*} Replicate Sample.

Table 4. Summary of Acid Extractable Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

			========	=========	=========	=========		=======
				LAB	LAB	METHOD	JAR	JAR
Well Designation:	XFB2	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK
Date:	10/85	10/84	10/84	10/84	10/84	1/85	1/85	4/85
USEPA Priority Pollutant								
Acid Extractable								
Organic Compounds								
(Concentrations are in ug/L)								
2-Chlorophenol	ND	ND ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND
Total Acid Compounds Analyzed	0	0	0	0	0	0	0	0

ND Not Detected.

^{*} Replicate Sample.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	MW7B	MW7B	A8WM	ASWM	MW8A	MW8A	MW8A
Date:	10/85	12/86	4/84	8/84	10/84	1/85	4/8
USEPA Priority Pollutant							
Base/Neutral Extractable							
Organic Compounds							
(Concentrations are in ug/L)							
Acenaphthene	ND	ND	ND	ND	ND	ND	N
Acenapthylene	ND	ND	ND	ND	ND	ND	N
Anthracene	ND	ND	ND	ND	ND	ND	Ni
Benzidine	ND	ND	ND	ND	ND	ND	N
Benzo (a) anthracene	ND	ND	ND	ND	ND	ND	N
Benzo (a) pyrene	ND	ND	ND	ND	ND	ND	NI
Benzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	N
Benzo (ghi) perylene	ND	ND	ND	ND	ND	ND	N
Benzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	N
Bis (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	_ NI
Bis (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	N
Bis (2-chloroisopropyl) ether	ND	ND	ND 3	ND	ND 137	ND	N
Bis (2-ethylhexyl) phthalate	<10	ND	_	ND	127	13.7	N!
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	N
Butyl benzyl phthalate	ND	ND ND	ND ND	ND ND	ND ND	ND ND	NI N
2-Chloronaphthalene	ND ND	ND	ND	ND ND	ND	ND	N
4-Chlorophenyl phenyl ether	ND ND	ND	ND	ND	ND	ND	N
Chrysene Dibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	N
1,2-Dichlorobenzene	45.6	36.1	59	4	11	6.1	6.
1,3-Dichlorobenzene	ND	3.02	ND	ND	1	ND	NI NI
1,4-Dichlorobenzene	399	591	78	5	15	8.2	8.8
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	NI NI
Diethyl phthalate	ND	ND	39	ND	<1	ND	NI NI
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	NI NI
Di-n-butyl phthalate	ND	ND	ND	3	10	ND	NI
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	N
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	N
Di-n-octyl phthalate	ND	ND	ND	ND	3	ND	N
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	N
Fluoranthene	ND	ND	ND	ND	ND	ND	N
Fluorene	ND	ND	ND	ND	ND	ND	N
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	N
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	N
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	N
Hexachloroethane	ND	ND	ND	ND	ND	ND	N
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	N
Isophorone	ND	ND	ND	ND	ND	ND	N
Naph thal ene	434	ND	ND	ND	<1	2.6	2.
Nitrobenzene	23.3	ND	ND	ND	ND	ND	N
n-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	N
n-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	N
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	N
Phenanthrene	ND	ND	ND	ND	<1	ND	N
Pyrene	ND	ND	ND	ND	ND	ND	N
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	N
Total Base/Neutral Compounds Analyzed	901.9	630.1	179	12	167	30.6	17.

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

	An 14 4			A41 / 4 -	141.4	141.4	
Well Designation:	MW1A	MW1A	MW1A	MW1A	MW1A	MW1A	MW1
Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/8
USEPA Priority Pollutant Base/Neutral Extractable							
Organic Compounds							
(Concentrations are in ug/L)							
Acenaphthene	ND	ND	ND	ND	ND	ND	ı
Acenapthylene	ND	ND	ND	ND	ND	ND	
Anthracene	ND	ND	ND	ND	ND	ND	
Benzidine	ND	ND	ND	ND	ND	ND	
Benzo (a) anthracene	ND	ND	ND	ND	ND	ND	
Benzo (a) pyrene	ND	ND	ND	ND	ND	ND	
Benzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	
Benzo (ghi) perylene	ND	ND	ND	ND	ND	ND	
Benzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	
Bis (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	
Bis (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	
Bis (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	
Bis (2-ethylhexyl) phthalate	ND	ND	1	76	ND	14.0	<
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	`
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
Chrysene	ND	ND	ND	ND	ND	ND	
Dibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	
Diethyl phthalate	4	ND	ND	ND	ND	<10	
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	
Di-n-butyl phthalate	2	1	1	16	ND	ND	<
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
Di-n-octyl phthalate	ND	ND	ND	12	ND		
1,2-Diphenylhydrazine	ND	ND	ND	ND		ND	
Fluoranthene					ND	ND	
Fluorene	ND ND	ND	ND	ND	ND	ND	
Hexachlorobenzene		ND	ND	ND	ND	ND	
Hexachlorobutadiene	ND ND	ND ND	ND	ND ND	ND	ND	
Hexachlorocyclopentadiene	ND	ND	ND ND		ND	ND	
Hexachloroethane	ND	ND		ND ND	ND	ND	
Indeno (1,2,3-c,d) pyrene	ND	ND	ND ND		ND	ND	
Isophorone			ND	ND	ND	ND	
Naphthalene	ND ND	ND ND	ND	ND	ND	ND	
Nitrobenzene	ND	ND	ND ND	ND ND	ND ND	ND ND	
n-Nitrosodimethylamine	ND	ND	ND	ND ND			
n-Nitrosodi-n-propylamine	ND	ND ND	ND	ND ND	ND ND	ND	
n-Nitrosodiphenylamine						ND	
Phenanthrene	ND	ND	ND	ND	ND	ND	
	ND	ND	ND	ND	ND	ND	
Pyrene 1.2 /-Trichlorehenzene	ND	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	
••••							

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Date: 4/84 8/84 10/84	1/85			MW
Base/Neutral Extractable Organic Compounds		4/85	7/85	10/
Concentrations are in ug/L				
Concentrations are in ug/L				
Acenaphthene Acenapthylene Acenace Acenapthylene Acenace				
Anthracene				
Anthracene	ND	ND	ND	
No	ND	ND	ND	
Senzidine	ND ND	ND ND	ND ND	
Senzo (a) anthracene ND	ND	ND	ND	
Renzo (a) pyrene Renzo (b) fluoroanthene Renzo (b) fluoroanthene Renzo (k) Renzo	ND	ND	ND	
No	ND	ND	ND	
tenzo (ghi) perylene tenzo (k) fluoranthene t	ND	ND	ND	
denzo (k) fluoranthene denzo (k) fluoranthene dis (2-chloroethoxy) methane dis (2-chloroethyl) ether dis (2-chlorofoxpyl) ether dis (2-chloroisopropyl) ethe	ND	ND	ND	
Alsis (2-chloroethoxy) methane Alsis (2-chloroethyl) ether Alsis (2-chloroethyl) ether Alsis (2-chloroisopropyl) ether Alsis (ND	ND	ND	
Ais (2-chloroethyl) ether Ais (2-chloroisopropyl) ether Ais (2-chylhexyl) phthalate Ais (2-ethylhexyl) phthalate Ais (3-ehylhexyl) phthalate Ais	ND	ND	ND ND	
Sis (2-chloroisopropyl) ether ND	ND	ND	ND	
Sis (2-ethylhexyl) phthalate i-Bromophenyl phenyl ether ND N	ND	ND	ND	
A-Bromophenyl phenyl ether ND	11	ND	<10	
Retryl benzyl phthalate Recomposition of the state of the	ND	ND	ND	
2-Chloronaphthalene ND	ND	ND	ND	
chlorophenyl phenyl ether ND	ND	ND	ND	
Chrysene ND	ND	ND	ND	
Dibenzo (a,h) anthracene Dicenzo (a,h) anthrac	ND	ND	ND	
1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,5,3-Dichlorobenzidine 1,5,3-Dichlorobenzidine 1,5,3-Dichlorobenzidine 1,5,3-Dichlorobenzidine 1,5,3-Dichlorobenzidine 1,5,4-Dichlorobenzidine 1,5,4-Dichlorobenzidine 1,5,4-Dichlorobenzene 1,5,4-Dichlorobenzen	ND	ND	ND	
1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene 1,5-Dichlorobenzene 1,5-Dichlorobenzidine 1,5-Dichlorobenzidine 1,5-Dichlorobenzidine 1,5-Dimethyl phthalate 2,5-Dimethyl phthalate 2,6-Dimitrotoluene 1,6-Dimitrotoluene 1,7-Diphenylhydrazine 1,7-Diphenylhydrazine 1,7-Diphenylhydrazine 1,7-Diphenylhydrazine 1,8-Diphenylhydrazine 1,8-Diphenylhy	ND	ND	ND	
A-Dichlorobenzene AD ND	ND	ND	ND	
A,3-Dichlorobenzidine Diethyl phthalate Dimethyl phthalate Dimethyl phthalate Din-butyl phthalate Di-n-butyl phtha	ND	ND	ND	
Diethyl phthalate Dimethyl phthalate Dimethyl phthalate Dimethyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate Di-n-octyl phthala	ND	ND	ND	
Dimethyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate Di-n-butyl phthalate Di-n-octyl phthalate Di-n-Di-n-Di-Di-Di-Di-Di-Di-Di-Di-Di-Di-Di-Di-Di-	ND	ND	ND	
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ND	ND	ND	
2,4-Dinitrotoluene 2,6-Dinitrotoluene ND	ND	ND	ND	
2,6-Dinitrotoluene ND	ND	ND	ND	
Di-n-octyl phthalate ND ND ND ND (2-Diphenylhydrazine ND ND ND ND ND (3-Diphenylhydrazine ND ND ND ND ND (4-Diphenylhydrazine ND ND ND ND ND ND ND (4-Diphenylhydrazine ND N	ND	ND	ND	
1,2-Diphenylhydrazine ND	ND	ND	ND	
Tuoranthene ND	ND	ND	ND	
Fluorene ND	ND	ND	ND	
Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachlorocythane Indeno (1,2,3-c,d) pyrene Isophorone ND ND ND ND ND ND ND ND ND N	ND	ND	ND	
Hexachlorobutadiene ND	ND	ND	ND	
Rexachlorocyclopentadiene Rexachlorocyclopentadiene Rexachlorocyclopentadiene Rexachlorocyclopentadiene Rexachlorocyclopentadiene Rexachlorocyclopentadiene Rexachlorocyclopentadiene RD	ND	ND	ND	
Mexachloroethane ND	ND	ND	ND	
Indeno (1,2,3-c,d) pyrene ND	ND	ND	ND	
Asophorone ND	ND	ND	ND	
ND ND ND	ND	ND	ND	
n-Nitrosodimethylamine ND	ND	ND	ND	
n-Nitrosodi-n-propylamine ND	ND	ND	ND	
n-Nitrosodi-n-propylamine ND	ND	ND	ND	
n-Nitrosodiphenylamine ND	ND	ND	ND	
Phenanthrene ND ND ND	ND	ND	ND	
	ND	ND	ND	
	ND	ND	ND	
,2,4-Trichlorobenzene ND ND ND	ND	ND	ND	

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation: Date:	MW2A 4/84	MW2A 8/84	MW2A 10/84	MW2A 1/85	MW2A 4/85	MW2A 7/85	MW2 10/8
SEPA Priority Pollutant	.,			.,			,
ase/Neutral Extractable							
rganic Compounds							
Concentrations are in ug/L)							
cenaphthene	ND	ND	ND	ND	ND	ND	1
cenapthylene	ND	ND	ND	ND	ND	ND	1
nthracene	ND	ND	ND	ND	ND	ND	1
enzidine	ND	ND	ND	ND	ND	ND	ı
enzo (a) anthracene	ND	ND	ND	ND	ND	ND	1
enzo (a) pyrene	ND	ND	ND	ND	ND	ND	-
enzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	y.
enzo (ghi) perylene	ND	ND	ND	ND	ND	ND	1
enzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	ı
is (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	
is (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	
is (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	
is (2-ethylhexyl) phthalate	1	ND	1	ND	ND	<10	<
-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
utyl benzyl phthalate	ND	ND	ND	ND	ND	ND	
-Chloronaphthalene	ND	ND	ND	ND	ND	ND	
-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
hrysene	ND	ND	ND	ND	ND	ND	
ibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	
iethyl phthalate	3	ND	<1	ND	ND	ND	
imethyl phthalate	ND	ND	ND	ND	ND	ND	
i-n-butyl phthalate	4	1	3	ND	ND	ND	
,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
i-n-octyl phthalate	ND	ND	ND	ND	ND	ND	
,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	
luoranthene	ND	ND	ND	ND	ND	ND	
luorene	ND	ND	ND	ND	ND	ND	
exach l orobenzene	ND	ND	ND	ND	ND	ND	
exachlorobutadiene	ND	ND	ND	ND	ND	ND	
exachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	
exachloroethane	ND	ND	ND	ND	ND	ND	
ndeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	
sophorone	ND	ND	ND	ND	ND	ND	
aph tha lene	ND	ND	ND	ND	ND	ND	
itrobenzene	ND	ND	ND	ND	ND	ND	
-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	
henanthrene	ND	ND	ND	ND	ND	ND	
yrene	ND	ND	ND	ND	ND	ND	
,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	
•••				• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	MW2A	MW2B	MW2B	MW2B	MW2B	MW2B	MW2B
Date:	12/86	4/84	8/84	10/84	1/85	4/85	7/85
USEPA Priority Pollutant							
Base/Neutral Extractable							
Organic Compounds							
(Concentrations are in ug/L)							
4 secondation	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND	ND	ND	ND
Acenapthylene	ND	ND	ND	ND	ND	ND	ND
Anthracene Benzidine	ND	ND	ND	ND	ND	ND	ND
Benzo (a) anthracene	ND	ND	ND	ND	ND	ND	ND
Benzo (a) pyrene	ND	ND	ND	ND	ND	ND	ND
Benzo (b) fluoroanthene	ND	ND	ND	ND	, ND	ND	ND
Benzo (ghi) perylene	ND	ND	ND	ND	ND	ND	ND
Benzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	ND
Bis (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	ND
Bis (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	ND
Bis (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	ND
Bis (2-ethylhexyl) phthalate	ND	3	ND	1	11	ND	<10
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND	ND	ND	ND
Dibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	ND	2	ND	ND	ND	ND	ND
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	ND	3	3	1	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	ND
I sophorone	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND
n-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	ND
n-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	ND
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND
Total Base/Neutral Compounds Analyzed	0	8	3	2	11	0	0
				_			

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	ASWM	A8WM	ASWM	MW8AR	MW8B	MW8B	MW8E
Date:	7/85	10/85	12/86	12/86	4/84	8/84	10/84
USEPA Priority Pollutant							
Base/Neutral Extractable							
Organic Compounds							
(Concentrations are in ug/L)							
Acenaphthene	ND	ND	ND	ND	ND	ND	N
•	ND	ND	ND	ND	ND	ND	NI NI
Acenapthylene Anthracene	ND	ND ND	ND	ND	ND	ND	N
Benzidine	ND	ND	ND	ND	ND	ND	N
Benzo (a) anthracene	ND	ND	ND	ND	ND	ND	N
	ND	ND	ND	ND	ND	ND	N
Benzo (a) pyrene Benzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	N
Benzo (ghi) perylene	ND ND	ND ND	ND	ND	ND	ND	N
Benzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	N
	ND ND	ND	ND	ND	ND	ND	N
Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	N
COLUMN TO THE CO	1.00		ND	ND	ND	ND	N
Bis (2-chloroisopropyl) ether	ND -10.0	ND 19.0	<10	<10	2	ND	
Bis (2-ethylhexyl) phthalate	<10.0		ND	ND	ND	ND	
4-Bromophenyl phenyl ether	ND	ND ND	ND ND	ND	ND	ND	
Butyl benzyl phthalate	ND			ND	ND	ND	h
2-Chloronaphthalene	ND	ND	ND				
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
Chrysene	ND	ND	ND	ND	ND	ND	
Dibenzo (a,h) anthracene	ND	ND	ND 7 Oc	ND	ND	ND	
1,2-Dichlorobenzene	17.6	6.07	3.06	3.56	ND	ND	
1,3-Dichlorobenzene	<1.9	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	24.3	8.44	<4.4	5.30	ND	ND	
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	١
Diethyl phthalate	ND	ND	<10	ND	3	ND	
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	1
Di-n-butyl phthalate	ND	ND	<10	<10	2	3	
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	1
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	N
Di-n-octyl phthalate	ND	<10	ND	ND	ND	ND	١
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	1
Fluoranthene	ND	ND	ND	ND	ND	ND	1
Fluorene	ND	ND	ND	ND	ND	ND	1
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	1
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	1
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	,
Hexachloroethane	ND	ND	ND	ND	ND	ND	1
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	1
Isophorone	ND	ND	ND	ND	ND	ND	1
Naphthalene	<1.9	ND	ND	ND	ND	ND	1
Nitrobenzene	ND	ND	ND	ND	ND	ND	1
n-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	1
n-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	,
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	ı
Phenanthrene	ND	ND	ND	ND	ND	ND	
Pyrene	ND	ND	ND	ND	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND)
••							

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	MW8B	MW8B	MW8B	MW8B	MW8B	MW9	MV
Date:	1/85	4/85	7/85	10/85	12/86	4/84	8/8
SEPA Priority Pollutant	.,						
ase/Neutral Extractable							
organic Compounds							
Concentrations are in ug/L)							
cenaphthene	ND	ND	ND	ND	ND	ND	
cenapthylene	ND	ND	ND	ND	ND	ND	
Inthracene	ND	ND	ND	ND	ND	ND	
Benzidine	ND	ND	ND	ND	ND	ND	
Senzo (a) anthracene	ND	ND	ND	ND	ND	ND	
Benzo (a) pyrene	ND	ND	ND	ND	ND	ND	
Benzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	
Benzo (ghi) perylene	ND	ND	ND	ND	ND	ND	
Benzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	
Bis (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	
Bis (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	
Bis (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	
Bis (2-ethylhexyl) phthalate	15.8	ND	<12.5	<10	ND	1	
-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	
-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
thrysene	ND	ND	ND	ND	ND	ND	
ibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
3,3-Dichlorobenzidine	ND	ND	ND	ND ND	ND	ND	
Diethyl phthalate	ND	ND	ND	ND	ND	4	
imethyl phthalate	ND	ND	ND	ND	ND	ND	
oi-n-butyl phthalate	8.1	ND	ND	<10	ND	2	
2,4-Dinitrotoluene	ND	ND		ND		ND	
*			ND		ND		
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
i-n-octyl phthalate	ND	ND	ND	ND	ND	ND	
,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	
Luoranthene	ND	ND	ND	ND	4.45	ND	
luorene	ND	ND	ND	ND	ND	ND	
exachlorobenzene	ND	ND	ND	ND	ND	ND	
exachlorobutadiene	ND	ND	ND	ND	ND	ND	
exachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	
lexachloroethane	ND	ND	ND	ND	ND	ND	
ndeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	
sophorone	ND	ND	ND	ND	ND	ND	
aphthalene	ND	ND	ND	ND	ND	ND	
itrobenzene	ND	ND	ND	ND	ND	ND	
-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	
henanthrene	ND	ND	ND	ND	ND	ND	
yrene	ND	ND	ND	ND	ND	ND	
,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	
Total Base/Neutral Compounds Analyzed	23.9	0	0	0	4.5	7	

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designati		MW9	MW9	MW9	MW9	MW9	MW1
	ate: 10/84	1/85	4/85	7/85	10/85	12/86	4/8
USEPA Priority Pollutant Base/Neutral Extractable							
Drganic Compounds							
(Concentrations are in ug/L)							
(Concentrations are in ug/L)							
Acenaphthene	ND	ND	ND	ND	ND	ND	,
Acenaphylene	ND	ND	ND	ND	ND	ND	
Anthracene	ND	ND	ND	ND	ND	ND	i
Benzidine	ND	ND	ND	ND	ND	ND	
Benzo (a) anthracene	ND	ND	ND	ND	ND	ND	1
Benzo (a) pyrene	ND	ND	ND	ND	ND	ND	1
Benzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	ı
Benzo (ghi) perylene	ND	ND	ND	ND	ND	ND	1
Benzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	1
Bis (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	
Bis (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	1
Bis (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	1
Bis (2-ethylhexyl) phthalate	1	17	ND	<10.1	ND	ND	1
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	1
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	1
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	, 1
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
Chrysene	ND	ND	ND	ND	ND	ND	
Dibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	J
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	1
Diethyl phthalate	<1	ND	ND	ND	ND	ND	
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	J
Di-n-butyl phthalate	2	ND	ND	<10.1	ND	ND	
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	1
Fluoranthene	ND	ND	ND	ND	ND	ND	
Fluorene	ND	ND	ND	ND	ND	ND	
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	
Hexachloroethane	ND	ND	ND	ND	ND	ND	
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	
Isophorone	ND	ND	ND	ND	ND	ND ND	
Naphthalene	ND ND	ND ND	ND ND	ND ND	ND ND	ND	
Nitrobenzene n-Nitrosodimethylamine	ND ND	ND ND	ND	ND	ND	ND	
n-Nitrosodimethytamine n-Nitrosodi-n-propylamine	ND ND	ND	ND	ND	ND	ND	
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	
Phenanthrene	ND	ND	ND	ND	ND	ND	
Pyrene	ND ND	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	ND ND	ND	ND	ND ND	ND	ND	
Total Base/Neutral Compounds Anal	yzed 3	17	0	0	0	0	

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Date: SEPA Priority Pollutant		40 /0/	4 105	/ /05	7.05	40 /05	
	8/84	10/84	1/85	4/85	7/85	10/85	4/8
ase/Neutral Extractable							
rganic Compounds							
Concentrations are in ug/L)							
cenaphthene	ND	ND	ND	ND	ND	ND	
cenapthylene	ND	ND	ND	ND	ND	ND	
nthracene	ND	ND	ND	ND	ND	ND	
enzidine	ND	ND	ND	ND	ND	ND	
enzo (a) anthracene	ND	ND	ND	ND	ND	ND	
enzo (a) pyrene	ND	ND	ND	ND	ND	ND	
enzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	
enzo (ghi) perylene	ND	ND	ND	ND	ND	ND	
enzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	
is (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	
is (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	
is (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	
is (2-ethylhexyl) phthalate	ND	3	19	ND	<10.0	ND	
-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
utyl benzyl phthalate	ND	ND	ND	ND	ND	ND	
-Chloronaphthalene	ND	ND	ND	ND	ND	ND	
-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
hrysene	ND	ND	ND	ND	ND	ND	
ibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	
iethyl phthalate	ND	1	ND	ND	ND	ND	
imethyl phthalate	ND	ND	ND	ND	ND	ND	
i-n-butyl phthalate	2	2	12	ND	ND	<10	
,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
i-n-octyl phthalate	ND	<1	ND	ND	ND	ND	
,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	
luoranthene	ND	ND	ND	ND	ND	ND	
luorene	ND	ND	ND	ND	ND	ND	
exachlorobenzene	ND	ND	ND	ND	ND	ND	
exachtorobutadiene	ND	ND	ND	ND	ND	ND	
exachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	
exachloroethane	ND	ND	ND	ND	ND	ND	
ndeno (1,2,3-c,d) pyrene	ND	ND ND		ND ND			
			ND		ND	ND	
sophorone	ND	ND	ND	ND	ND	ND	
aphthalene	ND	ND	ND	ND	ND	ND	
itrobenzene	ND	ND	ND	ND	ND	ND	
-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	
henanthrene	ND	ND	ND	ND	<5.4	ND	
yrene	ND	ND	ND	ND	ND	ND	
,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	
Total Base/Neutral Compounds Analyzed	2	6	31	0	0	0	

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	MW11A	MW11A	MW11A	MW11A	MW11A	MW11A	MW1
Date:	8/84	10/84	1/85	4/85	7/85	10/85	4/
EPA Priority Pollutant							
se/Neutral Extractable							
ganic Compounds							
concentrations are in ug/L)							
					• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	
enaphthene	ND	ND	ND	ND	ND	ND	
enapthylene	ND	ND	ND	ND	ND	ND	
thracene	ND	ND	ND	ND	ND	ND	
enzidine	ND	ND	ND	ND	ND	ND	
enzo (a) anthracene	ND	ND	ND	ND	ND	ND	
enzo (a) pyrene	ND	ND	ND	ND	ND	ND	
enzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	
enzo (ghi) perylene	ND	ND	ND	ND	ND	ND	
enzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	
s (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	
s (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	
s (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	
s (2-ethylhexyl) phthalate	5	ND	ND	ND	<10.0	<10	
Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
ityl benzyl phthalate	ND	ND	ND	ND	ND	ND	
Chloronaphthalene	ND	ND	ND	ND	ND	ND	
Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
rysene	1	ND	ND	ND	ND	ND	
benzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	
ethyl phthalate	1	ND	ND	ND	ND	ND	
methyl phthalate	ND	ND	ND	ND	ND	ND	
-n-butyl phthalate	4	ND	ND	ND	ND	<10	
4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
-n-octyl phthalate	1	ND	ND	ND	ND	ND	
2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	
uoranthene	1	ND	ND	ND	ND	ND	
uorene	ND	ND	ND	ND	ND	ND	
exachlorobenzene	ND	ND	ND	ND	ND	ND	
exachlorobutadiene	ND	ND	ND	ND	ND	ND	
exachlorocyclopentadiene	ND ND	ND	ND	ND			
exachloroethane					ND	ND	
	ND	ND	ND	ND	ND	ND	
deno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	
ophorone	ND	ND	ND	ND	ND	ND	
phthalene	ND	ND	ND	ND	ND	ND	
trobenzene	ND	ND	ND	ND	ND	ND	
Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	
Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	
Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	
enanthrene en	1	ND	ND	ND	ND	ND	
rene	ND	ND	ND	ND	ND	ND	
2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	MW11B 8/84	M₩11B 10/84	MW11B 1/85	MW11B 4/85	MW11B 7/85	MW11B 10/85	MW11 1/8
Date: SEPA Priority Pollutant	0/04	10/04	1/05	4/03	1703	10/65	1/0
se/Neutral Extractable							
ganic Compounds							
Concentrations are in ug/L)							
cenaphthene	ND	<1	ND	ND	ND	ND	
cenapthylene	ND	ND	ND	ND	ND <1.9	ND ND	1
nthracene enzidine	ND ND	ND ND	ND ND	ND ND	ND	ND ND	,
enzo (a) anthracene	ND	ND	ND	ND	ND	ND	,
enzo (a) pyrene	ND	ND	ND	ND	ND	ND	
enzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	1
enzo (ghi) perylene	ND	ND	ND	ND	ND	ND	
enzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	
is (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	
is (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	
is (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	
is (2-ethylhexyl) phthalate	44	1	ND	ND	<10	ND	
Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
ıtyl benzyl phthalate	ND	ND	ND	ND	ND	ND	
-Chloronaphthalene	ND	ND	ND	ND	ND	ND	
Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
rysene	ND	ND	ND	ND	ND	ND	
ibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	
ethyl phthalate	ND	ND	ND	ND	ND	ND	
imethyl phthalate	ND	ND	ND	ND	ND	ND	
-n-butyl phthalate	3	2	ND	ND	<10	31.2	
4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
-n-octyl phthalate	ND	ND	ND ND	ND	ND ND	ND ND	
2-Diphenylhydrazine	ND ND	ND		ND	ND		
luoranthene Luorene	ND	ND ND	ND ND	ND ND	<1.9	ND ND	
exachlorobenzene	ND	ND	ND	ND	ND	ND	
exachlorobutadiene	ND	ND	ND	ND	ND	ND	
exachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	
exachloroethane	ND	ND	ND	ND	ND	ND	
ndeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	
sophorone	ND	ND	ND	ND	<2.2	ND	
aphthalene	ND	ND	ND	ND	<1.6	ND	
trobenzene	ND	ND	ND	ND	ND	ND	
Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	
nenanthrene	ND	<1	ND	ND	ND	ND	
yrene	ND	ND	ND	ND	ND	ND	
,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation: Date:	MW11C 4/85	MW11C 7/85	MW11C 10/85	MW12 1/85	MW12 4/85	MW12 7/85	MW12 10/85
USEPA Priority Pollutant							
Base/Neutral Extractable							
Organic Compounds							
(Concentrations are in ug/L)							
Acenaphthene	ND	ND	ND	13	7.3	8.98	12.3
Acenapthylene	ND	ND	ND	ND	ND	ND	N
Anthracene	ND	<1.9	ND	ND	ND	ND	NI
Benzidine	ND	ND	ND	ND	ND	ND	N
Benzo (a) anthracene	ND	ND	ND	ND	ND	ND	NI
Benzo (a) pyrene	ND	ND	ND	ND	ND	ND	NI
Benzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	NI
Benzo (ghi) perylene	ND	ND	ND	ND	ND	ND	N
Benzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	N
Bis (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	N
Bis (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	N
Bis (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	N
Bis (2-ethylhexyl) phthalate	ND	11.8	ND	ND	ND	<10.0	N
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	N
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	N
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	N
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	N
Chrysene	ND	ND	ND	ND	ND	ND	N
Dibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	N
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	N
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	N
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	N
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	N
Diethyl phthalate	ND	ND	ND	ND	ND	ND	N
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	N
Di-n-butyl phthalate	ND	ND	ND	ND	ND	ND	N
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	N
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	N
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	N
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	N
Fluoranthene	2.3	ND	ND	ND	4.3	2.48	<2.
Fluorene	ND	<1.9	ND	ND	ND	8.60	9.3
Hexach Lorobenzene	ND	ND	ND	ND	ND	ND	N
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	N
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	N
Hexachloroethane	ND	ND	ND	ND	ND	ND	N
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	N
Isophorone	ND	ND	ND	ND	ND	ND	N
Naphthalene	ND	<1.6	ND	ND	ND	ND	N
Nitrobenzene	ND	ND	ND	ND	ND	ND	N
n-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	N
n-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	N
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	N
Phenanthrene	ND	ND	ND	ND	ND	<5.4	N
Pyrene	2.4	ND ,	ND	ND	ND	<1.9	<1.
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	N

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation: Date: USEPA Priority Pollutant Base/Neutral Extractable Organic Compounds (Concentrations are in ug/L) Acenaphthene Acenapthylene Anthracene Benzidine Benzo (a) anthracene Benzo (b) fluoroanthene Benzo (b) fluoroanthene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethoxy) methane Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	MW13 1/85 ND ND ND ND ND	MW13 4/85	MW13 7/85	MW13 10/85	MW14 1/85	MW14 4/85	MW14 7/85
Base/Neutral Extractable Organic Compounds (Concentrations are in ug/L) Acenaphthene Acenapthylene Anthracene Benzidine Benzo (a) anthracene Benzo (b) fluoroanthene Benzo (ghi) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethoxy) methane Bis (2-chloroisopropyl) ether	ND ND ND	ND	2.79				
Organic Compounds (Concentrations are in ug/L) Acenaphthene Acenapthylene Anthracene Benzidine Benzo (a) anthracene Benzo (b) fluoroanthene Benzo (ghi) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethoxy) methane Bis (2-chloroisopropyl) ether	ND ND ND	ND	2.79				
Concentrations are in ug/L) Acenaphthene Acenapthylene Anthracene Benzidine Benzo (a) anthracene Benzo (b) fluoroanthene Benzo (ghi) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethoxy) methane Bis (2-chloroisopropyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND ND ND	ND	2.79				
Acenaphthene Acenapthylene Anthracene Benzidine Benzo (a) anthracene Benzo (b) fluoroanthene Benzo (ghi) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether	ND ND ND	ND	2.79				
Acenapthylene Anthracene Benzidine Benzo (a) anthracene Benzo (b) fluoroanthene Benzo (b) fluoroanthene Benzo (ghi) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND ND ND	ND	2.79				
Acenapthylene Anthracene Benzidine Benzo (a) anthracene Benzo (b) fluoroanthene Benzo (b) fluoroanthene Benzo (ghi) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND ND ND	ND	2.79				
Anthracene Benzidine Benzo (a) anthracene Benzo (b) fluoroanthene Benzo (ch) fluoroanthene Benzo (ch) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND ND		/	17.3	ND	ND	N
Benzidine Benzo (a) anthracene Benzo (b) fluoroanthene Benzo (ghi) perylene Benzo (k) fluoranthene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene	ND		ND	ND	ND	ND	N
Benzo (a) anthracene Benzo (b) fluoroanthene Benzo (b) fluoroanthene Benzo (ghi) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene		ND	ND	3.59	ND	ND	N
Benzo (a) pyrene Benzo (b) fluoroanthene Benzo (ghi) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	N
Benzo (b) fluoroanthene Benzo (ghi) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroisopropyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,4-Dichlorobenzene		ND	ND	ND	ND	ND	<2.
Benzo (ghi) perylene Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	<4.
Benzo (k) fluoranthene Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	N
Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	N
Bis (2-chloroethyl) ether Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	١
Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
Bis (2-ethylhexyl) phthalate 4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND)
4-Bromophenyl phenyl ether Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
Butyl benzyl phthalate 2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	<10.0	ND	ND	ND	12.
2-Chloronaphthalene 4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
4-Chlorophenyl phenyl ether Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
Chrysene Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND)
Dibenzo (a,h) anthracene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND ND	ND ND	ND	ND	ND	ND	
1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene			ND	ND	ND	ND	!
1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND ND	ND ND	ND ND	ND ND	ND	ND	!
1,4-Dichlorobenzene	ND	ND	ND		ND	ND	
and the second s	ND	ND	ND	ND ND	ND ND	ND ND	
3,3-Dichlorobenzidine	ND	ND	ND	ND ND	ND	ND ND	
Diethyl phthalate	ND	ND	ND	ND	ND	ND	N
Dimethyl phthalate	ND	ND	ND	ND	ND	ND ND	N
Di-n-butyl phthalate	ND	ND	<10	<10	ND	ND	
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND ND	,
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	, ,
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	, N
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	
Fluoranthene	16	5.2	ND	2.89	ND	6.4	<2.
Fluorene	ND	ND	<1.9	17.2	ND	ND	٠٤.
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	
Hexachloroethane	ND	ND	ND	ND	ND	ND	
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	İ
Isophorone	ND	ND	ND	ND	ND	ND	
Naph tha lene	ND	1.9	ND	3.20	ND	ND	1
Nitrobenzene	ND	ND	ND	ND	ND	ND	
n-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	1
n-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	,
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	1
Phenanthrene	11	30.4	<5.5	<5.5	ND	5.7	,
Pyrene	ND	ND	ND	<1.9	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	1
Total Base/Neutral Compounds Analyzed					HU	NU	

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	MW14	MW14	MW15	MW15	MW15	MW16	MW16
Date:	10/85	12/86	1/85	4/85	7/85	1/85	4/85
USEPA Priority Pollutant							
Base/Neutral Extractable					*		
Organic Compounds							
(Concentrations are in ug/L)							
Acenaphthene	3.46	NA	ND	ND	ND	ND	ND
Acenapthylene	ND	NA	ND	ND	ND	ND	ND
Anthracene	ND	NA	ND	ND	ND	ND	ND
Benzidine	ND	NA	ND	ND	ND	ND	ND
Benzo (a) anthracene	<8.3	NA	ND	ND	ND	ND	ND
Benzo (a) pyrene	ND	NA	ND	ND	ND	ND	ND
Benzo (b) fluoroanthene	ND	NA	ND	ND	ND	ND	ND
Benzo (ghi) perylene	ND	NA NA	ND	ND	ND	ND	ND
Benzo (k) fluorantheme	ND	NA NA	ND	ND	ND	ND	ND
Bis (2-chloroethoxy) methane Bis (2-chloroethyl) ether	ND ND	NA NA	ND ND	ND ND	ND ND	ND ND	ND ND
Bis (2-chloroisopropyl) ether	ND ND	NA NA	ND	ND	ND	ND	ND
Bis (2-ethylhexyl) phthalate	28.0	NA NA	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	ND	NA.	ND	ND	ND	ND	ND
Butyl benzyl phthalate	ND	NA.	ND	ND	ND	ND	ND
2-Chloronaphthalene	ND	NA	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	ND	NA	ND	ND	ND	ND	ND
Chrysene	ND	NA	ND	ND	ND	ND	ND
Dibenzo (a,h) anthracene	ND	NA	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	NA	11	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	NA	ND	ND	ND	ND	ND
1, <mark>4-Dichlorobenzen</mark> e	9.70	NA	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	ND	NA	ND	ND	ND	ND	ND
Diethyl phthalate	ND	NA	ND	ND	ND	ND	ND
Dimethyl phthalate	ND	NA	ND	ND	ND	ND	ND
Di-n-butyl phthalate	ND	NA	ND	ND	<10.0	ND	ND
2,4-Dinitrotoluene	ND	NA	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	ND	NA	ND	ND	ND	ND	ND
Di-n-octyl phthalate	ND	NA	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	ND 2 70	NA '	ND	ND	ND	ND	ND
Fluoranthene	2.78	NA	ND	ND	ND	ND	ND
Fluorene	3.51	NA NA	ND	ND	ND	ND	ND
Hexachlorobenzene Hexachlorobutadiene	ND	NA NA	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	ND ND	NA NA	ND ND	ND ND	ND ND	ND ND	NC NC
Hexachloroethane	ND	NA NA	ND	ND	ND ND	ND	NC NC
Indeno (1,2,3-c,d) pyrene	ND	NA NA	ND	ND	ND ND	ND	NC NC
Isophorone	ND	NA NA	ND	ND	ND	ND	NC
Naphthalene	6.45	NA NA	ND	ND	ND	ND	NE
Nitrobenzene	ND	NA.	ND	ND	ND	ND	NC
n-Nitrosodimethylamine	ND	NA	ND	ND	ND	ND	NC
n-Nitrosodi-n-propylamine	ND	NA	ND	ND	ND	ND	NE
n-Nitrosodiphenylamine	ND	NA	89	ND	ND	ND	ND
Phenanthrene	ND	NA	ND	62.3	ND	ND	NE
Pyrene	ND	NA	ND	ND	ND	ND	NC
1,2,4-Trichlorobenzene	ND	NA	ND	ND	ND	ND	ND
				• • • • • • • • • • • • • • • • • • • •			

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	MW16	MW16	MW17	MW17	MW17	MW17	MW18
Date:	7/85	10/85	1/85	4/85	7/85	10/85	1/8
SEPA Priority Pollutant							
ase/Neutral Extractable							
rganic Compounds							
Concentrations are in ug/L)							
cenaphthene	ND	ND	ND	ND	2.02	ND	
cenapthylene	ND	ND	ND	ND	ND	ND	
nthracene	<1.9	ND	ND	ND	2.81	ND	
enzidine	ND	ND	ND	ND	ND	ND	
enzo (a) anthracene	ND	ND	ND	ND	ND	ND	
enzo (a) pyrene	ND	ND	ND	ND	ND	ND	
enzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	
enzo (ghi) perylene	ND	ND	ND	ND	ND	ND	
enzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	
is (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	
is (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	
is (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	
is (2-ethylhexyl) phthalate	<10	ND	ND	ND	<10	<10	2
-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
utyl benzyl phthalate	ND	ND	ND	ND	ND	ND	
-Chloronaphthalene	ND	ND	ND	ND	ND	ND	
-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
hrysene	ND	ND	ND	ND	ND ND	ND	
ibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
,2-Dichlorobenzene	ND	ND	ND	ND	ND ND	ND	
					100		
,3-Dichlorobenzene ,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
	ND	ND	ND	ND	ND	ND	
,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	
iethyl phthalate	ND	ND	ND	ND	ND	ND	
imethyl phthalate	ND	ND	ND	ND	ND	ND	
i-n-butyl phthalate	ND	<10	ND	ND	ND	<10	
4-Dinitrotoluene	6.71	ND	ND	ND	ND	ND	
,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
i-n-octyl phthalate	ND	ND	ND	ND	ND	ND	
,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	
luoranthene	ND	ND	ND	ND	4.30	ND	
luorene	ND	ND	ND	ND	2.35	ND	
exach lorobenzene	ND	ND	ND	ND	ND	ND	
exachlorobutadiene	ND	ND	ND	ND	ND	ND	
exachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	
exachloroethane	ND	ND	ND	ND	ND	ND	
ndeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	
sophorone	ND	ND	ND	ND	ND	ND	
aphthalene e	<1.6	ND	ND	ND	ND	ND	1
itrobenzene	ND	ND	ND	ND	ND	ND	
-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	
nenanthrene	ND	ND	ND	ND	11.8	ND	
yrene	ND	ND	ND	ND	2.88	ND	
,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	MW18A	MW18A	MW18A	MW18A	MW18B	MW18B	MW18
Date:	4/85	7/85	10/85	12/86	1/85	4/85	7/8
SEPA Priority Pollutant							
ase/Neutral Extractable							
rganic Compounds							
Concentrations are in ug/L)							
cenaphthene	ND	ND	ND	ND	ND	ND	N
cenapthylene	ND	ND	ND	ND	ND	ND	N
nthracene	ND	ND	ND	ND	ND	ND	
enzidine	ND	ND	ND	ND	ND	ND	
enzo (a) anthracene	ND	ND	ND	ND	ND	ND	,
enzo (a) pyrene	ND	ND	ND	ND	ND	ND	1
enzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	1
enzo (ghi) perylene	ND	ND	ND	ND	ND	ND	1
enzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	1
is (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	
is (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	
is (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	1
is (2-ethylhexyl) phthalate	15.5	<10.5	44.1	14.1	ND	ND	<11
-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
utyl benzyl phthalate	ND	ND	ND	ND	ND	ND	
-Chloronaphthalene	ND	ND	ND	ND	ND	ND	
-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
thrysene	ND	ND	ND	ND	ND	ND	
ibenzo (a,h) anthracene	ND	ND	ND	3.30	ND	ND	
,2-Dichlorobenzene	2.1	11.2	30.7	ND	ND	ND	
,3-Dichlorobenzene	ND	ND	6.59	7.32	ND	ND	
,4-Dichlorobenzene	ND	46.5	67.8	ND	ND	ND	
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	i
iethyl phthalate	ND	ND	ND	ND	ND	ND	
imethyl phthalate	ND	ND	ND	ND	ND	ND	,
i-n-butyl phthalate	ND	ND	ND	<10	3.8	ND ND	<11
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
■ V 60 385 35 (March 1997) (1							
,6-Dinitrotoluene	ND	ND	ND 110	ND	ND	ND	
i-n-octyl phthalate	ND	ND	<10	ND	ND	ND	
,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	
luoranthene	ND	ND	ND	ND	ND	ND	
luorene	ND	ND	ND	ND	ND	ND	
exachlorobenzene	ND	ND	ND	ND	ND	ND	
exachlorobutadiene	ND	ND	ND	ND	ND	ND	
exachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	
exachloroethane	ND	ND	ND	ND	ND	ND	
ndeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	
sophorone	ND	ND	ND	ND	ND	ND	
aphthalene	15.7	191	229	ND	ND	ND	
i trobenzene	ND	ND	ND	ND	ND	ND	
-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	
henanthrene	ND	ND	ND	ND	ND	ND	
yrene	ND	ND	ND	ND	ND	ND	
,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	
Total Base/Neutral Compounds Analyzed	33.3	248.7	378.2	24.7	3.8	0	

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	MW18B	MW18B	MW19	MW19	MW19	MW19	MW1
Date:	10/85	12/86	1/85	4/85	7/85	10/85	12/8
EPA Priority Pollutant							
se/Neutral Extractable							
ganic Compounds							
Concentrations are in ug/L)							
enaphthene	ND	ND	ND	ND	ND	ND	N
enapthylene	ND	ND	ND	ND	ND	ND	N
thracene	ND	ND	ND	ND	ND	ND	١
enzidine	ND	ND	ND	ND	ND	ND	,
enzo (a) anthracene	ND	ND	ND	ND	ND	ND	,
enzo (a) pyrene	ND	ND	ND	ND	ND	ND	!
enzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	!
enzo (ghi) perylene	ND	ND	ND	ND	ND	ND	,
enzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	1
s (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	
s (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	
s (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	
s (2-ethylhexyl) phthalate	ND	17.6	ND	ND	<10.0	ND	
Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
ityl benzyl phthalate	ND	ND	ND	ND	ND	ND	
Chloronaphthalene	ND	ND	ND	ND	ND	ND	
Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
rysene	ND	ND	ND	ND	ND	ND	
benzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	
ethyl phthalate	ND	ND	ND	ND	ND	ND	
methyl phthalate	ND	ND	ND	ND	ND	ND	
-n-butyl phthalate	ND	<11	ND	ND	ND	ND	
4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
-n-octyl phthalate	ND	ND	ND	ND	ND	ND	
2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	
uoranthene	ND	ND	ND	ND	ND	ND	
uorene	ND	ND	ND	ND	ND	ND	
exachlorobenzene	ND	ND	ND	ND	ND	ND	
exachlorobutadiene	ND	ND	ND	ND	ND	ND	
exachlorocyclopentadiene	ND	ND	ND	ND .	ND	ND	
exachloroethane	ND	ND	ND	ND	ND	ND	
ndeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND 2.04	
sophorone aphthalene	ND	ND	ND	ND 2.4	<2.2	2.96	
trobenzene	ND	ND ND	ND	2.4	ND	ND	
Nitrosodimethylamine	ND	ND ND	ND	ND	ND	ND	
	ND	ND ND	ND ND	ND ND	ND	ND	
Nitrosodi-n-propylamine	ND				ND	ND	
Nitrosodiphenylamine	ND	ND ND	ND	ND	ND	ND	
nenanthrene	ND	ND	ND	ND	ND	ND	
/rene	ND	ND	ND	ND	ND	ND	
2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	
Total Base/Neutral Compounds Analyzed							

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	MW20	MW20	MW20	MW20	MW20	BLANK	BLAN
Date:	1/85	4/85	7/85	10/85	12/86	10/84	10/8
SEPA Priority Pollutant							
ase/Neutral Extractable							
rganic Compounds							
Concentrations are in ug/L)							
cenaph thene	ND	ND	9.59	8.61	8.47	ND	N
cenapthylene	ND	ND	ND	ND	ND	ND	N
nthracene	ND	ND	2.48	ND	<2.0	ND	
enzidine	ND	ND	ND	ND	ND	ND	1
enzo (a) anthracene	ND	ND	<7.9	ND	ND	ND	1
enzo (a) pyrene	ND	ND	<2.5	ND	ND	ND	1
enzo (b) fluoroanthene	ND	ND	ND	ND	ND	ND	
enzo (ghi) perylene	ND	ND	ND	ND	ND	ND	1
enzo (k) fluoranthene	ND	ND	<3.5	ND	ND	ND	1
is (2-chloroethoxy) methane	ND	ND	ND	ND	. ND	ND	1
is (2-chloroethyl) ether	ND	ND	ND	ND	ND	ND	1
is (2-chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	1
is (2-ethylhexyl) phthalate	ND	ND	<10.1	ND	13.0	ND	
-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
utyl benzyl phthalate	ND	ND	ND	ND	ND	ND	
-Chloronaphthalene	ND	ND	ND	ND	ND	ND	
-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
hrysene	ND	ND	ND	ND	ND	ND	
ibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	
iethyl phthalate	ND	ND	ND	ND	ND	ND	
imethyl phthalate	ND	ND	ND	ND	ND	ND	
i-n-butyl phthalate	ND	ND	<10.1	ND	ND	1	
,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
i-n-octyl phthalate	ND	ND	ND	ND	ND	ND	
,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	
Luoranthene	ND	2.5	15.1	2.50	5.34	ND	
luorene	ND	4.0	9.75	6.93	7.87	ND	
exachlorobenzene	ND	ND	ND	ND	ND	ND	
exachlorobutadiene	ND	ND	ND	ND	ND	ND	
exachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	
exachloroethane	ND	ND	ND	ND	ND	ND	
ndeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	
sophorone	ND	ND	ND	ND	ND	ND	
aphthalene	ND	ND	ND	ND	ND	ND	
itrobenzene	ND	ND	ND	ND	ND	ND	
-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	
-Nitrosodi-H-propytamine	ND	ND	ND	ND	ND	ND	
henanthrene	ND	ND ND	<5.5	ND	ND	ND ND	
yrene	ND	ND	13.1	<1.9	ND	ND	
,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	
• • • • • • • • • • • • • • • • • • • •							

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

	==========						
	LAB	LAB	LAB	METHOD	JAR	JAR	
Well Designation:	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	XFB
Date:	10/84	10/84	10/84	1/85	1/85	1/85	10/8
USEPA Priority Pollutant							
Base/Neutral Extractable							
Organic Compounds							
(Concentrations are in ug/L)							
Acenaphthene	ND	ND	ND	ND	ND	ND	N
Acenapthylene	ND	ND	ND	ND	ND	ND	N
Anthracene	ND	ND	ND	ND ND	ND	ND	N
Benzidine	ND ND	ND ND	ND ND	ND	ND ND	ND ND	
Benzo (a) anthracene	ND	ND ND	ND ND	ND	ND	ND	
Benzo (a) pyrene	ND	ND	ND	ND	ND	ND	, ,
Benzo (b) fluoroanthene	ND	ND ND	ND ND	ND	ND	ND	,
Benzo (ghi) perylene Benzo (k) fluoranthene	ND	ND	ND	ND	ND	ND	,
Bis (2-chloroethoxy) methane	ND	ND	ND	ND	ND	ND	,
Bis (2-chloroethyl) ether	ND	ND	ND ND	ND	ND	ND	,
Bis (2-chlorostnyt) ether Bis (2-chlorosopropyl) ether	ND	ND	ND ND	ND	ND	ND	,
Bis (2-chloroisopropyl) ether Bis (2-ethylhexyl) phthalate	<1	<1	ND ND	ND	ND ND	ND	,
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	,
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	,
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	i
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	
Chrysene	ND	ND	ND	ND	ND	ND	
Dibenzo (a,h) anthracene	ND	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	
3,3-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	
Diethyl phthalate	ND	ND	ND	ND	ND	ND	
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	
Di-n-butyl phthalate	ND	ND	ND	2.7	ND	ND	<
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	i
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	i
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	
Fluoranthene	ND	ND	ND	ND	ND	ND	
Fluorene	ND	ND	ND	ND	ND	ND	i
Hexachlorobenzene	ND	ND	ND	ND	ND	ND ND	
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	j
Hexachloroethane	ND	ND	ND	ND	ND	ND	
Indeno (1,2,3-c,d) pyrene	ND	ND	ND	ND	ND	ND	
Isophorone	ND	ND	ND	ND	ND	ND	i
Naphthalene	ND	ND	ND	ND	ND	ND	
Nitrobenzene	ND	ND	ND	ND	ND	ND	
n-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	
n-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	
Phenanthrene	ND	ND	ND	ND	ND	ND	
Pyrene	ND	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	1
Total Base/Neutral Compounds Analyzed	0	0	0	2.7	0	0	

^{* -} Replicate Sample.

ND - Not Detected.

Table 5. Summary of Base/Neutral Extractable Compounds in Ground Water, Monsanto Company, J.F. Queeny Plant, St. Louis, Missouri.

Well Designation:	XFB1	XFB2	XFB2
Date:	12/86	10/85	12/86
USEPA Priority Pollutant			
Base/Neutral Extractable Organic Compounds			
(Concentrations are in ug/L)			
Acenaphthene	ND	ND	ND
Acenapthylene	ND	ND	ND.
Anthracene	ND	ND	ND
Benzidine	ND	ND	ND
Benzo (a) anthracene	ND	ND	ND
Benzo (a) pyrene	ND	ND	ND
Benzo (b) fluoroanthene	ND	ND	ND
Benzo (ghi) perylene	ND	ND	ND
Benzo (k) fluoranthene	ND	ND	ND
Bis (2-chloroethoxy) methane	ND	ND	ND
Bis (2-chloroethyl) ether	ND	ND	ND
Bis (2-chloroisopropyl) ether	ND	ND	ND
Bis (2-ethylhexyl) phthalate	ND	ND	ND
4-Bromophenyl phenyl ether	ND	ND	ND
Butyl benzyl phthalate	ND	ND	ND
2-Chloronaphthalene	ND	ND	ND
4-Chlorophenyl phenyl ether	ND	ND	ND
Chrysene	ND	ND	ND
Dibenzo (a,h) anthracene	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND
3,3-Dichlorobenzidine	ND	ND	ND
Diethyl phthalate	ND	ND	ND
Dimethyl phthalate	ND	ND	ND
Di-n-butyl phthalate	ND	ND	<10
2,4-Dinitrotoluene 2,6-Dinitrotoluene	ND	ND	ND
Di-n-octyl phthalate	ND	ND	ND
1,2-Diphenylhydrazine	ND ND	ND ND	ND
Fluoranthene	ND	ND	ND ND
Fluorene	ND	ND	ND
Hexachlorobenzene	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND
Hexachlorocyclopentadiene	ND	ND	ND ND
Hexachloroethane	ND	ND	ND
Indeno (1,2,3-c,d) pyrene	ND	ND	ND
Isophorone	ND	ND	ND
Naphthalene	ND	ND	ND
Nitrobenzene	ND	ND	ND
n-Nitrosodimethylamine	ND	ND	ND
n-Nitrosodi-n-propylamine	ND	ND	ND
n-Nitrosodiphenylamine	ND	ND	ND
Phenanthrene	ND	ND	ND
Pyrene	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND
Total Base/Neutral Compounds Analyzed	0	0	0

^{* -} Replicate Sample.

ND - Not Detected.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW1A	MW1A	MW1A	MW1A	MW1A	MW1A	MW1A	MW1B
Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	4/84
USEPA Priority Pollutant						141		
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	. ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

	Well Designation:	MW1B	MW1B	MW1B	MW1B	MW1B	MW1B	MW2A	MW2A
	Date:	8/84	10/84	1/85	4/85	7/85	10/85	4/84	8/84
	USEPA Priority Pollutant								
	Pesticide/PCB Compounds								
	(Concentrations are in ug/L)								
		· · · · · · · · · · · · · · · · · · ·						• • • • • • • • • • • • • • • • • • • •	
	Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
	Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
	Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
	Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
	Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
	Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
	4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
	4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
	4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
	Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
	Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
	Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
	Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
	Endrin	ND	ND	ND	ND	ND	ND	ND	ND
	Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
	Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
8	Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1248 -	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
	Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
	Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0
	Total restrictues/FCB compounds	U	U	U	U	U	U	U	U

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

MW2A MW2A MW2A MW2A MW2A MW2B Well Designation: MW2B MW2B 7/85 Date: 10/84 1/85 4/85 10/85 4/84 8/84 10/84 USEPA Priority Pollutant Pesticide/PCB Compounds (Concentrations are in ug/L) Aldrin ND ND ND ND ND ND ND ND ND Alpha-BHC ND ND ND ND ND ND ND Beta-BHC ND ND ND ND ND ND ND ND Gamma-BHC ND ND ND ND ND ND ND ND Delta-BHC ND ND ND ND ND ND ND ND Chlordane ND ND ND ND ND ND ND ND 4,4'-DDT ND ND ND ND ND ND ND ND 4,4'-DDE ND ND ND ND ND ND ND ND 4,4'-DDD ND ND ND ND ND ND ND ND Dieldrin ND ND ND ND ND ND ND ND Endosulfan I ND ND ND ND ND ND ND ND Endosulfan II ND ND ND ND ND ND ND ND Endosulfan sulfate ND ND ND ND ND ND ND ND Endrin ND ND ND ND ND ND ND ND Endrin aldehyde ND ND ND ND ND ND ND ND Heptachlor ND ND ND ND ND ND ND ND Heptachlor epoxide ND ND ND ND ND ND ND ND PCB-1016 ND ND ND ND ND ND ND ND PCB-1221 ND ND ND ND ND ND ND ND PCB-1232 ND ND ND ND ND ND ND ND PCB-1242 ND ND ND ND ND ND ND ND PCB-1248 ND ND ND ND ND ND ND ND PCB-1254 ND ND ND ND ND ND ND ND PCB-1260 ND ND ND ND ND ND ND ND Toxaphene ND ND ND ND ND ND ND ND Total Pesticides/PCB Compounds 0 0 0 0 0 0 0 0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation: Date: USEPA Priority Pollutant Pesticide/PCB Compounds (Concentrations are in ug/L)	MW2B 1/85	MW2B 4/85	MW2B 7/85	MW2B 10/85	MW3 4/84	M₩3 8/84	M₩3 10/84	MW3 1/85
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC Beta-BHC Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW3	MW3	MW4	MW4	MW4	MW4	MW4	MW4
Date:	4/85	7/85	4/84	8/84	10/84	1/85	4/85	7/85
USEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Gamma - BHC	ND	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

	Well Designation:	MW4	MW5	MW5	MW5	MW5	MW5	MW5	MW5
	Date:	10/85	4/84	8/84	10/84	1/85	4/85	7/85	10/85
	USEPA Priority Pollutant								
	Pesticide/PCB Compounds								
1	(Concentrations are in ug/L)								
	Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
	Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
	Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
	Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
	Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
	Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
	4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
	4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
	4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
	Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
	Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
	Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
	Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
	Endrin	ND	ND	ND	ND	ND	ND	ND	ND
	Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
	Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
	Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1248	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
	Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
	Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0
	Total Pesticides/PCB Compounds	0 ==========	0 ======	0	0	0 	0	0	

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW6A	MW6A	MW6A	MW6A	MW6A	MW6A	MW6A	MW6B
Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	1/85
USEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Gamma - BHC	ND	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248 -	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND	ND .	ND	ND	ND
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

MW7A MW7A MW7A MW7A MW7A MW6B MW6B MW6B Well Designation: 4/84 8/84 4/85 Date: 4/85 7/85 10/85 10/84 1/85 USEPA Priority Pollutant Pesticide/PCB Compounds (Concentrations are in ug/L) ND ND ND ND ND Aldrin Alpha-BHC ND ND ND ND ND ND ND ND Beta-BHC ND ND ND ND ND ND ND ND Gamma-BHC ND ND ND ND ND ND ND ND Delta-BHC ND Chlordane ND ND ND 4,4'-DDT ND ND ND ND ND ND 4,4'-DDE ND ND ND ND ND ND ND 4,4'-DDD ND ND ND ND ND ND ND ND Dieldrin ND ND ND ND ND ND ND ND Endosulfan I ND ND ND ND ND ND ND Endosulfan II ND ND ND ND ND ND ND ND Endosulfan sulfate ND Endrin ND ND Endrin aldehyde ND ND ND ND ND ND ND ND Heptachlor ND ND ND ND ND ND ND ND Heptachlor epoxide ND ND ND ND ND ND ND ND PCB-1016 ND ND ND ND ND ND ND ND PCB-1221 ND ND ND ND ND ND ND ND PCB-1232 ND ND ND ND ND ND ND ND PCB-1242 ND ND ND ND ND ND ND ND PCB-1248 ND ND ND ND ND ND ND ND ND PCB-1254 ND ND ND ND ND ND ND PCB-1260 ND ND ND ND ND ND ND ND Toxaphene ND ND ND ND ND ND ND ND

0

0

0

0

0

0

Total Pesticides/PCB Compounds

0

0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

,	Well Designation:	MW7A	MW7A	MW7B	MW7B	MW7B	MW7B	MW7B	MW7B
	Date:	7/85	10/85	4/84	8/84	10/84	1/85	4/85	7/85
	USEPA Priority Pollutant								
	Pesticide/PCB Compounds								
	(Concentrations are in ug/L)								
	Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
	Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
1	Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
	Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
	Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
ì	Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
	4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
	4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
	4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
	Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
	Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
	Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
	Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	, ND
*	Endrin	ND	ND	ND	ND	ND	ND	ND	ND
	Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
	Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
	Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1248	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
	PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
	Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
	Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW7B	MW8A	A8WM	ASWM	MW8A	A8WM	A8WM	A8WM
Date:	10/85	4/84	8/84	10/84	1/85	4/85	7/85	10/85
USEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
CD ILOO								
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

MW8B MW8B MW8B Well Designation: MW8B MW8B MW8B MW8B MW9 Date: 4/84 8/84 10/84 1/85 4/85 7/85 10/85 4/84 USEPA Priority Pollutant Pesticide/PCB Compounds (Concentrations are in ug/L) Aldrin ND ND ND ND ND ND ND ND ND Alpha-BHC ND ND ND ND ND ND ND Beta-BHC ND ND ND ND ND ND ND ND Gamma-BHC ND ND ND ND ND ND ND ND Delta-BHC ND ND ND ND ND ND ND ND Chlordane ND ND ND ND ND ND ND ND 4,4'-DDT ND ND ND ND ND ND ND ND 4,4'-DDE ND ND ND ND ND ND ND ND 4,4'-DDD ND ND ND ND ND ND ND ND Dieldrin ND ND ND ND ND ND ND ND Endosulfan I ND ND ND ND ND ND ND ND Endosulfan II ND ND ND ND ND ND ND ND Endosulfan sulfate ND ND ND ND ND ND ND ND Endrin ND ND ND ND ND ND ND ND Endrin aldehyde ND ND ND ND ND ND ND ND Heptachlor ND ND ND ND ND ND ND ND Heptachlor epoxide ND ND ND ND ND ND ND ND PCB-1016 ND ND ND ND ND ND ND ND PCB-1221 ND ND ND ND ND ND ND ND PCB-1232 ND ND ND ND ND ND ND ND PCB-1242 ND ND ND ND ND ND ND ND PCB-1248 ND ND ND ND ND ND ND ND PCB-1254 ND ND ND ND ND ND ND PCB-1260 ND ND ND ND ND ND ND ND Toxaphene ND ND ND ND ND ND ND ND

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Total Pesticides/PCB Compounds

0

0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW9	MW9	MW9	MW9	MW9	MW9	MW10	MW10
Date:	8/84	10/84	1/85	4/85	7/85	10/85	4/84	8/84
USEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248-	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW10	MW10	MW10	MW10	MW10	MW11A	MW11A	MW11A
Date:	10/84	1/85	4/85	7/85	10/85	4/84	8/84	10/84
USEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW11A	MW11A	MW11A	MW11A	MW11B	MW11B	MW11B	MW11B
Date:	1/85	4/85	7/85	10/85	4/84	8/84	10/84	1/85
USEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND							
Alpha-BHC	ND							
Beta-BHC	ND							
Gamma-BHC	ND							
Delta-BHC	ND							
Chlordane	ND							
4,4'-DDT	ND							
4,4'-DDE	ND							
4,4'-DDD	ND							
Dieldrin	ND							
Endosulfan I	ND							
Endosulfan II	ND							
Endosulfan sulfate	ND							
Endrin	ND							
Endrin aldehyde	ND							
Heptachlor	ND							
Heptachlor epoxide	ND							
PCB-1016	ND							
PCB-1221	ND							
PCB-1232	ND							
PCB-1242	ND							
PCB-1248	ND							
PCB-1254	ND							
PCB-1260	ND							
Toxaphene	ND							
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation: MW11B MW11B MW11B MW11C MW11C MW11C MW11C MW12 4/85 7/85 10/85 1/85 4/85 7/85 Date: 10/85 1/85 USEPA Priority Pollutant Pesticide/PCB Compounds (Concentrations are in ug/L) Aldrin ND ND ND ND ND ND ND ND Alpha-BHC ND ND ND ND ND ND ND ND Beta-BHC ND ND ND ND ND ND ND ND Gamma-BHC ND ND ND ND ND ND ND ND Delta-BHC ND ND ND ND ND ND ND ND Chlordane ND ND ND ND ND ND ND ND 4,4'-DDT ND ND ND ND ND ND ND ND 4,4'-DDE ND ND ND ND ND ND ND ND 4,4'-DDD ND ND ND ND ND ND ND ND Dieldrin ND ND ND ND ND ND ND ND Endosulfan I ND ND ND ND ND ND ND ND Endosulfan II ND ND ND ND ND ND ND ND Endosulfan sulfate ND ND ND ND ND ND ND ND Endrin ND ND ND ND ND ND ND ND Endrin aldehyde ND ND ND ND ND ND ND ND Heptachlor ND ND ND ND ND ND ND ND ND Heptachlor epoxide ND ND ND ND ND ND ND PCB-1016 ND ND ND ND ND ND ND ND PCB-1221 ND ND ND ND ND ND ND ND PCB-1232 ND ND ND ND ND ND ND ND PCB-1242 ND ND ND ND ND ND ND ND PCB-1248 ND ND ND ND ND ND ND ND PCB-1254 ND ND ND ND ND ND ND ND PCB-1260 ND ND ND ND ND ND ND ND Toxaphene ND ND ND ND ND ND

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ND Not Detected.

Total Pesticides/PCB Compounds

0

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW12	MW12	MW12	MW13	MW13	MW13	MW13	MW14
Date:	4/85	7/85	10/85	1/85	4/85	7/85	10/85	1/85
USEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6.	Summary	of	Pesticide/PCE	Compounds	in	Ground Wa	ter,	J.F.	Queeny	Plant,	Monsanto	Company,	St.	Louis,	Missouri	
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Well Designation:	MW14	MW14	MW14	MW15	MW15	MW15	MW15	MW16
Date:	4/85	7/85	10/85	1/85	4/85	7/85	10/85	1/85
USEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248 -	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW16	MW16	MW16	MW17	MW17	MW17	MW17	MW18A
Date:	4/85	7/85	10/85	1/85	4/85	7/85	10/85	1/85
USEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Gamma - BHC	ND	ND	ND	ND	ND	ND	ND	ND
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1016	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1221	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1232	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1242	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1248	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1254	ND	ND	ND	ND	ND	ND	ND	ND
PCB-1260	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW18A	MW18A	MW18A	MW18B	MW18B	MW18B	MW18B	MW19
Date:	4/85	7/85	10/85	1/85	4/85	7/85	10/85	1/85
USEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND							
Alpha-BHC	ND							
Beta-BHC	ND							
Gamma-BHC	ND							
Delta-BHC	ND							
Chlordane	ND							
4,4'-DDT	ND							
4,4'-DDE	ND							
4,4'-DDD	ND							
Dieldrin	ND							
Endosulfan I	ND							
Endosulfan II	ND							
Endosulfan sulfate	ND							
Endrin	ND							
Endrin aldehyde	ND							
Heptachlor	ND							
Heptachlor epoxide	ND							
PCB-1016	ND							
PCB-1221	ND							
PCB-1232	ND							
PCB-1242	ND							
PCB-1248	ND							
PCB-1254	ND							
PCB-1260	ND							
Toxaphene	ND							
Total Pesticides/PCB Compounds	0	0	0	0	0	0	0	0

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation:	MW19	MW19	MW19	MW20	MW20	MW20	MW20	BLANK
Date:	4/85	7/85	10/85	1/85	4/85	7/85	10/85	10/84
JSEPA Priority Pollutant								
Pesticide/PCB Compounds								
(Concentrations are in ug/L)								
Aldrin	ND	ND	ND	ND	ND	ND	ND	NC
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	NE
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	NE
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	NE
Delta-BHC	ND	ND	ND	ND	ND	ND	ND	NO
Chlordane	ND	ND	ND	ND	ND	ND	ND	N
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	NE
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	N
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	N
Dieldrin	ND	ND	ND	ND	ND	ND	ND	N
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	N
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	N
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	NI
Endrin	ND	ND	ND	ND	ND	ND	ND	NI
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	NI
Heptachlor	ND	ND	ND	ND	ND	ND	ND	N
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	NI
PCB-1016	ND	ND	ND	ND	ND	ND	ND	N
PCB-1221	ND	ND	ND	ND	ND	ND	ND	NI
PCB-1232	ND	ND	ND	ND	ND	ND	ND	NI
PCB-1242	ND	ND	ND	ND	ND	ND	ND	N
PCB-1248	ND	ND	ND	ND	ND	ND	ND	N
PCB-1254	ND	ND	ND	ND	ND	ND	ND	NI
PCB-1260	ND	ND	ND	ND	ND	ND	ND	N
Toxaphene	ND	ND	ND	ND	ND	ND	ND	N
 Fotal Pesticides/PCB Compounds	0	0	0	0	0	0	0	

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		LAB	LAB	LAB	METHOD	JAR	JAR	FIEL
Well Designation:	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLAN
Date:	10/84	10/84	10/84	10/84	1/85	1/85	4/85	7/8
SEPA Priority Pollutant						+		
Pesticide/PCB Compounds								
Concentrations are in ug/L)								
			• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •				
lldrin	ND	ND	ND	ND	ND	ND	ND	1
lpha-BHC	ND	ND	ND	ND	ND	ND	ND	
Beta-BHC	ND	ND	ND	ND	ND	ND	ND)
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	
elta-BHC	ND	ND	ND	ND	ND	ND	ND	
Chlordane	ND	ND	ND	ND	ND	ND	ND	
,4'-DDT	ND	ND	ND	ND	ND	ND	ND	
,4'-DDE	ND	ND	ND	ND	ND	ND	ND	
,4'-DDD	ND	ND	ND	ND	ND	ND	ND	
ieldrin	ND	ND	ND	ND	ND	ND	ND	
indosulfan I	ND	ND	ND	ND	ND	ND	ND	
ndosulfan II	ND	ND	ND	ND	ND	ND	ND	
ndosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	
ndrin	ND	ND	ND	ND	ND	ND	ND	
ndrin aldehyde	ND	ND	ND	ND	ND	ND	ND	
leptachlor	ND	ND	ND	ND	ND	ND	ND	
leptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	
PCB-1016	ND	ND	ND	ND	ND	ND	ND	
PCB-1221	ND	ND	ND	ND	ND	ND	ND	
CB-1232	ND	ND	ND	ND	ND	ND	ND	
CB-1242	ND	ND	ND	ND	ND	ND	ND	
CB-1248	ND	ND	ND	ND	ND	ND	ND	
CB-1254	ND	ND	ND	ND	ND	ND	ND	
PCB-1260	ND	ND	ND	ND	ND	ND	ND	
oxaphene	ND	ND	ND	ND	ND	ND	ND	
otal Pesticides/PCB Compounds	0	0	0	 0	0	0	0	

ND Not Detected.

^{* -} Replicate Sample.

Table 6. Summary of Pesticide/PCB Compounds in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Designation: Date:	XFB1 10/85	XFB2 10/85
USEPA Priority Pollutant	10,03	10,03
Pesticide/PCB Compounds		
(Concentrations are in ug/L)		
Aldrin	ND	ND
Alpha-BHC	ND	ND
Beta-BHC	ND	ND
Gamma - BHC	ND	ND
Delta-BHC	ND	ND
Chlordane	ND	ND
4,4'-DDT	ND	ND
4,4'-DDE	ND	ND
4,4'-DDD	ND	ND
Dieldrin	ND	ND
Endosulfan I	ND	ND
Endosulfan II	ND	ND
Endosulfan sulfate	ND	ND
Endrin	ND	ND
Endrin aldehyde	ND	ND
Heptachlor	ND	ND
Heptachlor epoxide	ND	ND
PCB-1016	ND	ND
PCB-1221	ND	ND
PCB-1232	ND	ND
PCB-1242	ND	ND
PCB-1248 °	ND	ND
PCB-1254	ND	ND
PCB-1260	ND	ND
Toxaphene	ND	ND
	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
Total Pesticides/PCB Compounds	0	0
		=======

ND Not Detected.

^{* -} Replicate Sample.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

7									
	Well Number:	MW1A	MW1A	MW1A	MW1A	MW1A	MW1A	MW1A	MW1B
	Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	4/84
	USEPA Priority Pollutant								
	Metals (Concentrations are								
	in ug/L, except where noted)								
							•		
	Antimony	19	130	10,400	ND	ND	ND	ND	24
	Arsenic	48	24	6	ND	ND	ND	ND	69
	Beryllium	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	2	5	1	8	ND	ND	ND	2
1	Chromium	80	41	20,600	ND	ND	ND	ND	70
	Copper	90	54	36	ND	ND	ND	ND	100
	Lead	22	62	10	ND	ND	ND	ND	81
	Mercury	ND	0.34	0.65	ND	ND	ND	ND	0.27
	Nickel	70	63	112	ND	ND	ND	ND	190
	Selenium	ND	ND	ND	ND	ND	ND	ND	17
1	Silver	2	ND	1,600	ND	ND	ND	ND	3
	Thallium	5	5	ND	ND	ND	ND	<5	6
	Zinc	200	248	102	90	ND	ND	40	370
	Miscellaneous Parameters								
	Cyanide	21	14	9	59	ND	<25	44.3	28
1	Total Phenols (mg/L)	0.003	ND	ND	ND	ND	<50	<50	0.009
j	Total Organic Carbon (mg/L)	12	19.8	14.8	17/18	9.9/7.9	NA	ND	19

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Number:	MW1B	MW1B	MW1B	MW1B	MW1B	MW2A	MW2A	MW2A
Date:	10/84	1/85	4/85	7/85	10/85	4/84	8/84	10/84
USEPA Priority Pollutant								
Metals (Concentrations are								
in ug/L, except where noted)								
An <mark>timon</mark> y	25,500	ND	ND	ND	ND	24	32	7,900
Arsenic	24	ND	ND	ND	ND	69	2	8
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	3	ND	ND	ND	<4	2	ND	2
Chromium	51,600	3	3	ND	ND	120	9	13,800
Copper	125	ND	ND	ND	ND	ND	10	50
Lead	28	ND	ND	ND	ND	46	16	13
<u>Mercury</u>	0.22	ND	ND	ND	ND	0.22	ND	0.21
Nickel	344	ND	ND	ND	<20	200	16	132
Selenium	6	6	10	9	6	ND	ND	1
Silver	940	ND	ND	ND	ND	3	ND	2,570
Thallium	ND	ND	ND	<5	ND	6	ND	ND
Zinc	376	170	60	ND	30	390	20	113
Miscellaneous Parameters								
Cyanide	ND	43	ND	<25	<25	12	15	7
Total Phenols (mg/L)	ND	ND	ND	<50	<50	0.004	0.007	ND
Total Organic Carbon (mg/L)	8.7	25/23	3.0/3.1	ND	ND	5	3	10.6

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

							_	
Well Number:	MW2A	MW2A	MW2A	MW2A	MW2B	MW2B	MW2B	MW2B
Date:	4/85	7/85	10/85	12/86	4/84	8/84	10/84	1/85
USEPA Priority Pollutant								
Metals (Concentrations are								
in ug/L, except where noted)								
			• • • • • • • • • • • • • • • • • • • •					
Antimony	ND	ND	ND	NA	20	48	15,600	ND
Arsenic	ND	ND	ND	NA	57	17	20	7
Beryllium	ND	ND	ND	NA	ND	ND	ND	ND
Cadmium	ND	ND	<4	NA	3	8	2	ND
Chromium	ND	ND	ND	NA	ND	34	36,300	ND
Copper	ND	ND	ND	NA	60	58	71	ND
Lead	ND	ND	<50	NA	116	93	34	ND
Mercury	ND	ND	ND	NA	0.24	0.42	0.26	ND
Nickel	30	ND	30	NA	110	85	325	30
Selenium	ND	<5	ND	NA	ND	ND	ND	ND
Silver	ND	ND	ND	NA	2	ND	1,020	ND
Thallium	ND	ND	ND	NA	5	4	ND	ND
Zinc	ND	ND	70	NA	270	251	335	90
Miscellaneous Parameters								
Cyanide	ND	<25	<25	ND	22	ND	ND	ND
Total Phenols (mg/L)	ND	100	<50	ND	0.004	ND	ND	ND
Total Organic Carbon (mg/L)	12/12	ND	ND	5.09/5.37	15	2.9	9.2	4.2/4.5

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

	Table 7. Summary of Metals and	Miscellaneous	Parameters	in Ground Wa	iter, J.F. Qu	ueeny Plant,	Monsanto Com	npany, St. Lo	uis, Missouri.
			=========		=========			========	
	Well Number:	MW2B	MW2B	MW2B	MW3	MW3	MW3	MW3	MW3
	Date:	7/85	10/85	12/86	4/84	8/84	10/84	1/85	4/85
	USEPA Priority Pollutant								
	Metals (Concentrations are								
	in ug/L, except where noted)								
	Antimony	ND	ND	NA NA	14	52	14,600	ND	ND
	Arsenic	ND	ND	NA.	24	11	22	5	10
	Beryllium	ND	ND	NA.	ND	ND	ND	ND	ND
	Cadmium	<8	<4	NA	2	3	4	ND	ND
	Chromium	ND	ND	NA	ND	20	27,300	ND	ND
	Copper	ND	ND	NA	ND	46	152	ND	ND
	Lead	ND	<50	NA	14	61	64	ND	ND
	Mercury	ND	ND	NA	0.22	0.56	0.48	ND	ND
	Nickel	<50	30	NA	ND	43	313	ND	9
	Selenium	ND	ND	NA	ND	ND	ND	ND	- ND
1	Silver	ND	ND	NA	3	ND	2,150	ND	ND
	Thallium	ND	ND	NA	6	3	ND	ND	ND
	Zinc	ND	70	NA	60	162	432	ND	10
	Miscellaneous Parameters								
	Cyanide	<25	<25	ND	5	ND	ND	31	ND
	Total Phenols (mg/L)	80	<50	ND	0.009	0.004	ND	ND	0.91

^{*} Replicate sample.

Total Organic Carbon (mg/L)

ND

ND

1.9/1.9

12.2

23.6

9.3/8

11/11

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Number:	MW3	MW4	MW4	MW4	MW4	MW4	MW4	MW4
Date:	10/85	4/84	8/84	10/84	1/85	4/85	7/85	10/85
USEPA Priority Pollutant	10/65	4/04	0,04	10/04	1705	4/03	1703	10/03
Metals (Concentrations are								
in ug/L, except where noted)								
in ug/L, except where noted)								
Antimony	ND	15	64	13,000	ND	ND	ND	ND
Arsenic	<10	49	6	11	ND	12	<10	18
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	ND	4	3	3	ND	ND	ND	ND
Chromium	ND	ND	16	13,300	ND	ND	ND	ND
Copper	ND	ND	24	44	ND	ND	ND	ND
Lead	<50	18	39	12	ND	ND	ND	ND
Mercury	ND	ND	0.21	ND	ND	ND	ND	ND
Nickel	<5	60	47	180	20	20	<50	<20
Selenium	ND	ND	ND	ND	ND	ND	ND	ND
Silver	ND	2	ND	1,240	ND	ND	ND	<8
Thallium	ND	4	3	ND	ND	ND	ND	ND
Zinc	ND	130	428	103	40	ND	<40	<20
Miscellaneous Parameters								• • • • • • • • • • • • • • • • • • • •
Cyanide	<25	ND	ND	33	ND	ND	<25	25.9
Total Phenols (mg/L)	<50	0.017	0.029	ND	ND	ND	51	<50
Total Organic Carbon (mg/L)	ND	76	137.9	81.2	60/61	NA	ND	ND

Replicate sample.

ND Not detected.

NA Not analyzed.

Well Number:	MW4	MW5	MW5	MW5	MW5	MW5	MW5	MW5
Date:	12/86	4/84	8/84	10/84	1/85	4/85	7/85	10/85
SEPA Priority Pollutant								
Metals (Concentrations are								
in ug/L, except where noted)								
Antimony	NA NA	13	45	11,900	ND	ND	ND	ND
rsenic	NA	73	9	11	ND	ND	ND	<10
Beryllium	NA	ND	ND	ND	ND	ND	ND	ND
Cadmium	NA	3	9	2	8	ND	ND	ND
<u>Chromium</u>	NA	ND	42	8,620	ND	ND	ND	ND
Copper	NA	80	113	127	ND	ND	ND	<7
Lead	NA	155	238	92	ND	ND	<100	ND
Mercury	NA	0.24	0.39	0.31	ND	ND	ND	ND
Nickel	NA	ND	41	161	ND	ND	ND	<10
Selenium	NA	ND	ND	ND	ND	ND	ND	<5
Silver	NA	5	ND	1,030	ND	ND	ND	ND
Thallium	NA	7	7	ND	ND	ND	ND	ND
Zinc	NA	120	248	110	100	ND	ND	ND

ND

0.004

40.8

10

ND

10.6

ND

ND

7.9/7.4

ND

ND

5.2/5.0

<25

200

ND

<25

<50

ND 5.6

Total Organic Carbon (mg/L) 44.7/44.1

Total Phenols (mg/L)

ND

0.128

ND

ND

9

Cyanide

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Number:	MW6A	MW6A	MW6A	MW6A	MW6A	MW6A	MW6B	MW6B
Date:	4/84	8/84	10/84	4/85	7/85	10/85	1/85	4/85
USEPA Priority Pollutant								
Metals (Concentrations are								
in ug/L, except where noted)								
Antimony	29	53	14,700	ND	ND	ND	ND	ND
Arsenic	73	15	17	76	47	49	ND	23
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	2	5	7	ND	ND	<4	ND	ND
Chromium	ND	30	51,600	ND	ND	ND	ND	ND
Copper	ND	ND	17	ND	ND	ND	ND	ND
Lead	27	16	10	ND	ND	ND	ND	ND
Mercury	6	0.31	ND	ND	ND	ND	ND	ND
Nickel	110	30	164	20	ND	ND	ND	10
Selenium	ND	ND	ND	ND	<5	<10	ND	ND
Silver	10	ND	780	ND	ND	ND	ND	ND
Thallium	30	6	ND	ND	<5	ND	ND	ND
Zinc	60	75	48	10	<20	ND	ND	30
Miscellaneous Parameters								
Cyanide	ND	ND	ND	ND	<25	<25	NA	ND
Total Phenols (mg/L)	0.013	0.209	ND	0.220	200	289	NA	0.120
Total Organic Carbon (mg/L)	455	271	181	410/410	ND	ND	NA	190/190
	=========							., 0, ., 0

Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7.	Summary of Metals	and Miscellaneous	Parameters	in Ground W	Water, J.F	. Queeny	Plant,	Monsanto	Company,	St.	Louis,	Missouri.

		========						
Well N	umber: Mu	6B MW	7A MW7A	MW7A	MW7A	MW7A	MW7A	MW7A
	Date: 10/	85 4/	84 8/84	10/84	1/85	4/85	7/85	10/85
USEPA Priority Pollutar	it							
Metals (Concentrations	are							
in ug/L, except where n	oted)							
Antimony		ND	14 30	9,900	ND	ND	ND	ND
Arsenic		15	79 17	19	35	39	30	45
Beryllium		ND	ND ND	ND	ND	ND	<1	ND
Cadmium		ND	11 2	. ND	ND	ND	ND	<4
Chromium		ND	ND ND	9,750	ND	ND	ND	ND
Copper		ND	ND 5	75	ND	ND	<9	ND
Lead		ND	18 14	. 6	ND	ND	ND	ND
Mercury		ND	ND 0.21	ND	ND	ND	ND	ND
Nickel	•	20	ND 7	150	ND	ND	ND	ND
Selenium		<5	ND ND	ND	ND	ND	ND	ND
Silver		<8	ND ND	1,810	ND	ND	ND	ND
Thallium		ND	ND 2	. ND	ND	ND	ND	ND
Zinc	•	20 1	00 13	75	ND	ND	ND	60
Miscellaneous Parameter	·s							
Cyanide	•	25	26 ND	ND	ND	ND	<25	<25
Total Phenols (mg/L)	2	16 0.2	96 0.049	ND ND	0.058	ND	<50	205
Total Organic Carbon (m	ng/L)	ND	19 225.4	37.7	13/15	160/160	ND	ND 1
Total Organic Carbon (ii	A/ L/	NU	17 223.4	31.1	13/13	100/100	NU	NU

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

	=========			=========				
Well Number:	M₩7B	MW7B	MW7B	MW7B	MW7B	MW7B	MW7B	MW7B
Date:	4/84	8/84	10/84	1/85	4/85	7/85	10/85	12/86
SEPA Priority Pollutant								
etals (Concentrations are								
n ug/L, except where noted)								
								• • • • • • • • • • • • • • • • • • • •
ntimony	13	28	12,100	ND	ND	ND	ND	NA
rsenic	168	110	40	ND	ND	<10	ND	NA
eryllium	ND	ND	ND	ND	ND	<1	ND	NA
admium	2	12	ND	ND	ND	ND	ND	NA
romium	ND	67	19,000	ND	ND	ND	ND	NA
opper	ND	108	59	ND	ND	<9	<10	NA
ead	27	98	20	ND	ND	ND	ND	NA
ercury	0.37	0.69	0.21	ND	ND	ND	ND	NA
ickel	50	92	211	ND	ND	<30	<20	NA
elenium	ND	ND	ND	ND	ND	ND	ND	NA
ilver	2	ND	2,660	ND	ND	ND	ND	NA
hallium	3	3	ND	ND	ND	ND	ND	NA
inc	120	334	121	ND	ND	ND	<20	NA
iscellaneous Parameters								
yani de	6	8	ND	ND	ND	<25	<25	ND
otal Phenols (mg/L)	0.038	0.081	ND	0.082	0.330	320	164.8	0.058

Replicate sample.

Not detected. Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Number:	ASWM	ASWM	A8WM	MW8A	A8WM	A8WM	A8WM	MW8B
Date:	8/84	10/84	1/85	4/85	7/85	10/85	12/86	4/84
SEPA Priority Pollutant								
Metals (Concentrations are								
in ug/L, except where noted)								
ntimony	51	10,200	ND	ND	ND	ND	NA	10
rsenic	3	5	ND	ND	12	ND	NA	30
eryllium	ND	ND	ND	ND	ND	ND	NA	ND
admium	5	ND	ND	ND	ND	ND	NA	7
hromium	25	5,120	ND	ND	ND	ND	NA	ND
opper	5	37	ND	ND	ND	ND	NA	80
.ead	22	34	ND	ND	<100	ND	NA	199
lercury	ND	0.21	ND	ND	<.2	ND	NA	1.71
lickel	10	134	ND	ND	ND	ND	NA	200
Selenium	ND	ND	ND	ND	ND	ND	NA	ND
Silver	ND	1,180	ND	ND	ND	<10	NA	6
hallium	7	ND	ND	ND	ND	ND	NA	ND
inc	52	136	50	ND	<20	<40	NA	390
iscellaneous Parameters								
yanide	15	ND	ND	ND	<25	<25	ND	10
otal Phenols (mg/L)	0.446	ND	ND	0.460	380	467	0.117	0.003
otal Organic Carbon (mg/L)	64.8	65.6	71/75	280/290	ND	ND	21.8/22.4	22

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

Well Number:	MW8B	MW8B	MW8B	MW8B	MW8B	MW8B	MW8	MW9
Date:	10/84	1/85	4/85	7/85	10/85	12/86	12/86*	4/84
SEPA Priority Pollutant								
Metals (Concentrations are								
in ug/L, except where noted)								
Antimony	8,500	ND	ND	ND	ND	NA	NA	30
Arsenic	14	ND	ND	<10	<10	NA	NA	55
Beryllium	ND	ND	ND	ND	ND	NA	NA	ND
Cadmium	ND	ND	ND	<10	<3	NA	NA	2
Chromium	39,500	ND	ND	ND	ND	NA	NA	ND
Copper	171	ND	ND	30	ND	NA	NA	50
Lead	148	ND	ND	<100	ND	NA	NA	29
Mercury	1.97	ND	ND	0.2	ND	NA	NA	0.39
Nickel	314	ND	ND	ND	ND	NA	NA	60
Selenium	ND	ND	ND	ND	<5	NA	NA	ND
Silver	980	ND	ND	ND	ND	NA	NA	9
Thallium	ND	ND	ND	ND	<5	NA	NA	31
Zinc	578	ND	ND	30	<40	NA	NA	90
diasallamanya Banamatana								
Miscellaneous Parameters								
Cyanide	ND	100	ND	<25	<25	ND	ND	18
Total Phenols (mg/L)	ND	ND	ND	160	160	ND	0.134	0.009
Total Organic Carbon (mg/L)	31.4	20/18	300/310	ND	ND	12.3/12.0	27.6/24.1	9

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

				=========				
Well Number:	MW9	MW9	MW9	MW9	MW9	MW9	MW10	MW10
Date:	10/84	1/85	4/85	7/85	10/85	12/86	4/84	8/84
USEPA Priority Pollutant								
Metals (Concentrations are								
in ug/L, except where noted)								
Antimony	44,800	ND	ND	ND	ND	NA	15	41
Arsenic	40	16	28	17	32	NA	127	32
Beryllium	ND	ND	ND	ND	ND	NA	ND	ND
Cadmium	ND	ND	ND	ND	ND	NA	3	8
Chromium	24,900	ND	ND	ND	ND	NA	110	32
Copper	192	ND	ND	ND	ND	NA	80	52
Lead	111	ND	ND	ND	<50	NA	62	104
Mercury	ND	ND	ND	ND	ND	NA	4	0.45
lickel	380	ND	ND	ND	ND	NA	230	50
Selenium	ND	ND	ND	ND	ND	NA	ND	ND
Silver	2,800	ND	ND	ND	ND	NA	3	ND
Thallium	ND	ND	ND	ND	ND	NA	10	7
Zinc	298	ND	ND	<20	ND	NA	390	367
Miscellaneous Parameters								
Cyanide	14	35	ND	<25	27.8	ND	5	9
Total Phenols (mg/L)	ND	ND	ND	69	<50	0.432	0.004	0.008
Total Organic Carbon (mg/L)	44.1	13/12	7.3/6.8	ND	ND	8.09/8.13	32	98.9

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and M	iscellaneous	Parameters	in Ground Wa	ater, J.F.	Queeny Plant,	Monsanto	Company, St.	Louis, Missou
								========
	46		40	40				
Well Number:	MW10	MW10	MW10	MW10	MW10	MW11A	MW11A	MW11A
Date:	1/85	4/85	7/85	10/85	12/86	4/84	8/84	10/84
SEPA Priority Pollutant								
Metals (Concentrations are								
n ug/L, except where noted)								
ntimony	ND	ND	ND	ND	NA	24	60	9,000
rsenic	35	30	16	11	NA	35	26	11
eryllium	ND	ND	ND	ND	NA	ND	ND	ND
admium	ND	ND	<6	ND	NA	10	3	ND
hromium	ND	ND	ND	ND	NA	ND	28	13,500
opper	ND	ND	ND	ND	NA	ND	109	148
ead	ND	ND	ND	ND	NA	35	330	353
ercury	ND	ND	ND	ND	NA	ND	1.14	ND
ickel	ND	ND	ND	ND	NA	ND	30	120
elenium	ND	ND	ND	ND	NA	ND	ND	ND
ilver	ND	ND	ND	ND	NA	8	ND	1,580
hallium	ND	ND	ND	ND	NA	7	12	ND
inc	40	ND	<40	<20	NA	100	320	233
liscellaneous Parameters								
yanide	25	ND ND	<25	 <25	ND	37	6	10

ND

<50

ND

0.176

22.4/20.9

42

0.026

19.6

0.792

ND

31.8

0.130

53/56

ND

23/22

Total Organic Carbon (mg/L)

Total Phenols (mg/L)

Replicate sample.

ND Not detected.

Not analyzed.

Well Number:	MW11A	MW11A	MW11A	MW11A	MW11B	MW11B	MW11B	MW11B
Date:	4/85	7/85	10/85	12/86	4/84	8/84	10/84	1/85
SEPA Priority Pollutant etals (Concentrations are								
n ug/L, except where noted)								
ug/L, except where noted)								
ntimony	ND	ND	ND	NA	29	34	11,200	ND
rsenic	33	33	16	NA	5	36	32	26
eryllium	ND	ND	ND	NA	ND	ND	ND	ND
admium	ND	ND	3	NA	2	12	ND	ND
nromium -	ND	ND	ND	NA	100	79	24,200	ND
pper	ND	ND	<7	NA	70	134	119	ND
ead	ND	ND	ND	NA	231	394	347	ND
ercury	ND	ND	ND	NA	0.54	1.63	0.21	ND
ickel	ND	ND	ND	NA	40	56	117	ND
elenium	ND	ND	ND	NA	ND	ND	ND	ND
lver	ND	ND	ND	NA	4	ND	1,090	ND
nallium	ND	<5	ND	NA	12	15	ND	ND
nc	ND	ND	ND	NA	220	784	269	ND
iscellaneous Parameters								
vani de	ND	<25	<25	ND	24	ND	26	33
otal Phenols (mg/L)	ND	270	<50	0.332	0.032	0.024	ND	ND
otal Organic Carbon (mg/L)	21/22	ND	ND	30.3/31.1	654	759.6	842	400/400

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Well N	umber:	MW11B	MW11B	MW11B	MW11C	MW11C	MW11C	MW11C	MW11C
	Date:	7/85	10/85	12/86	1/85	4/85	7/85	10/85	12/86
SEPA Priority Pollutan	t								
etals (Concentrations	are								
n ug/L, except where n	oted)								
ntimony		ND	ND	NA	ND	ND	ND	ND	NA.
rsenic		44	32	NA	19	21	14	16	NA
eryllium		ND	ND	NA	ND	ND	ND	ND	NA
admium		ND	ND	NA	ND	ND	ND	ND	NA
hromium		ND	ND	NA	ND	ND	ND	ND	NA
opper		ND	<7	NA	ND	ND	ND	<7	NA
ead		ND	ND	NA	ND	ND	ND	ND	NA
ercury		ND	ND	NA	ND	ND	ND	ND	NA
ickel		ND	ND	NA	ND	ND	ND	<10	NA
elenium		ND	ND	NA	ND	ND	ND	<5	NA
ilver		ND	ND	NA	ND	ND	ND	ND	NA
hallium		ND	ND	NA	ND	ND	ND	<5	NA
inc		ND	ND	NA	ND	ND	ND	, ND	NA
iscellaneous Parameter	s								
yanide		<25	<25	ND	ND	ND	<25	<25	ND
otal Phenols (mg/L)		190	<50	ND	ND	ND	270	70.1	0.289
otal Organic Carbon (m	a/L)	ND	ND	594/588	51/52	33/32	ND	ND	9.83/10.4

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

=								========		=
	Well Number:	MW12	MW12	MW12	MW12	MW13	MW13	MW13	MW13	
	Date:	4/85	7/85	10/85	12/86	1/85	4/85	7/85	10/85	
U	SEPA Priority Pollutant									
M	Metals (Concentrations are									
i	n ug/L, except where noted)									
A	Intimony	ND	ND	ND	NA	ND	ND	ND	ND	-
A	rsenic	ND	ND	<10	NA	ND	10	ND	<10	
В	Beryllium	ND	ND	ND	NA	ND	ND	ND	ND	
C	Cadmium	ND	ND	ND	NA	ND	ND	ND	ND	
C	Chromium	ND	ND	ND	NA	ND	ND	ND	ND	
C	Copper	ND	ND	<7	NA	ND	ND	ND	ND	
L	ead	ND	ND	ND	NA	ND	ND	ND	ND	
M	lercury	ND	ND	ND	NA	ND	ND	ND	ND	
N	lickel	ND	ND	ND	NA	ND	ND	ND	ND	
S	Selenium	ND	ND	ND	NA	ND	ND	ND	ND	
S	Silver	ND	ND	<10	NA	ND	ND	ND	ND	
T	hallium	ND	ND	NA	NA	ND	ND	ND	ND	
Z	inc	ND	ND	ND	NA	ND	ND	ND	ND	
M	iscellaneous Parameters									
-										-
C	Cyanide	ND	<25	<25	ND	ND	ND	<25	25	
T	otal Phenols (mg/L)	ND	140	<50	0.110	ND	0.094	<50	560	
	otal Organic Carbon (mg/L)	31/31	ND	ND	27.9/23.7	110/110	120/120	ND	ND	6

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

	Table 7. Summary of Meta	als and Miscellaneou	s Parameters	in Ground W	ater, J.F.	Queeny Plant,	Monsanto Co	ompany, St. L	ouis, Missouri.	
					========		=========	=========	===========	
	Well Num	mber: MW14	MW14	MW14	MW14	MW15	MW15	MW15	MW15	
		Date: 4/85	7/85	10/85	12/86	1/85	4/85	7/85	10/85	
	USEPA Priority Pollutant									
	Metals (Concentrations an	re								
	in ug/L, except where not	ted)								
									•••••	
	Antimony	ND	ND	ND	NA	ND	ND	ND	ND	
	Arsenic	ND	<10	15	NA	ND	ND	<10	13	
	Beryllium	ND	ND	ND	NA	ND	ND	ND	ND	
	Cadmium	ND	ND	ND	NA	ND	10	ND	4	
	Chromium	ND	ND	ND	NA	ND	ND	ND	ND	
	Copper	ND	ND	<7	NA	ND	ND	ND	<7	
	Lead	ND	ND	ND	NA	ND	ND	ND	ND	
	Mercury	ND	ND	ND	NA	ND	ND	ND	ND	
	Nickel	ND	ND	<10	NA	ND	ND	ND	<10	
	Selenium	ND	<5	ND	NA	ND	ND	ND	5	
i	Silver	ND	ND	ND	NA	ND	ND	ND	ND	
	Thallium	ND	ND	ND	NA	ND	ND	ND	ND	
	Zinc	ND	ND	ND	NA	ND	ND	ND	<20	

MISCEL	Laneous	Pai	ameter	5

Cyanide	ND	<25	<25	ND	30	ND	<25	<25	
Total Phenols (mg/L)	0.180	910	52.1	0.388	ND	ND	300	<50	
Total Organic Carbon (mg/L)	390/390	ND	ND	412/412	9.7/9.8	11/11	ND	ND	5.9

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

								=========	=======================================
	Well Number:	MW16	MW16	MW16	MW16	MW17	MW17	MW17	MW17
1	Date:	1/85	4/85	7/85	10/85	1/85	4/85	7/85	10/85
	USEPA Priority Pollutant								
	Metals (Concentrations are								
	in ug/L, except where noted)								
	Antimony	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	ND	ND	ND	ND	ND	ND	ND	ND
	Beryllium	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	ND	ND	ND	ND	ND	ND	<7	ND
	Chromium	ND	ND	ND	ND	ND	ND	ND	ND
	Copper	ND	ND	ND	<7	ND	ND	ND	<7
	Lead	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	ND	ND	ND	ND	ND	ND	ND	ND
	Nickel	ND	ND	ND	ND	ND	ND	ND	10
	Selenium	ND	ND	ND	ND	ND	ND	ND	ND
	Silver	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	ND	ND	<5	ND	ND	ND	ND	ND
	Zinc	ND	ND	ND	ND	30	40	ND	20
	Miscellaneous Parameters								
	Cyanide	46	ND	<25	28.3	48	ND	<25	<25
	Total Phenols (mg/L)	0.073	ND	<50	<50	0.088	ND	<50	<50
	Total Organic Carbon (mg/L)	17/18	25/26	ND	ND	7.4/7.8	4.2/3.9	ND	ND

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

=======================================					==========			========
Well Number:	MW18A	MW18A	MW18A	MW18A	MW18B	MW18B	MW18B	MW18B
Date:	4/85	7/85	10/85	12/86	1/85	4/85	7/85	10/85
USEPA Priority Pollutant								
Metals (Concentrations are								
in ug/L, except where noted)								
Antimony	ND	ND	ND	NA	ND	ND	ND	ND
Arsenic	ND	18	12	NA	ND	ND	0.33	ND
Beryllium	ND	ND	ND	NA	ND	ND	2	ND
Cadmium	5	ND	ND	NA	ND	ND	<10	ND
Chromium	ND	ND	ND	NA	ND	ND	<30	ND
Copper	ND	<10	ND	NA	ND	ND	120	ND
Lead	ND	ND	<50	NA	ND	ND	700	ND
Mercury	ND	<.2	ND	NA	ND	ND	6	ND
Nickel	ND	<30	ND	NA	ND	ND	60	ND
Selenium	ND	<5	ND	NA	ND	ND	ND	ND
Silver	ND	ND	ND	NA	ND	ND	ND	ND
Thallium	ND	ND	ND	NA	ND	ND	<5	ND
Zinc	ND	40	20	NA	20	20	1,600	ND
Miscellaneous Parameters								
Cyanide	ND	<25	<25	ND	400	170	580	141
Total Phenols (mg/L)	0.077	170	130	0.106	ND	ND	120	<50
Total Organic Carbon (mg/L)	NA	ND	ND	12.5/12.5	14/17	23/23	ND	ND

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and M	Miscell ane ous	Parameters	in Ground Wa	iter, J.F. Qu	ueeny Plant, I	Monsanto Com	pany, St. Lo	uis, Missouri
=======================================							=========	========
Well Number:	MW19	MW19	MW19	MW19	MW19	MW20	MW20	MW20
Date:	1/85	4/85	7/85	10/85	12/86	1/85	4/85	7/85
USEPA Priority Pollutant								
Metals (Concentrations are								
in ug/L, except where noted)								
Antimony	ND	ND	ND	ND	NA NA	ND	ND	ND
Arsenic	60	ND	ND	<10	NA	ND	ND	<10
Beryllium	ND	ND	<1	ND	NA	ND	ND	ND
Cadmium	ND	ND	ND	ND	NA	ND	ND	ND
Chromium	ND	ND	ND	ND	NA.	ND	ND	ND
Copper	ND	ND	ND	ND	NA.	ND	ND	ND
Lead	ND	ND	ND	ND	NA	ND	ND	ND
Mercury	ND	ND	ND	ND	NA.	ND	ND	<.2
Nickel	ND	ND	<30	ND	NA.	20	20	<30
Selenium	ND	ND	ND	ND	NA.	ND	ND	ND
Silver	ND	ND	<10	<8	NA NA	ND	ND	ND ND
Thallium	ND	ND	ND	ND	NA NA	ND	ND	ND ND
Zinc	20	10	20	40	NA NA	ND	6	
LIIIC	20	10	20	40	NA	NU	0	ND
Miscellaneous Parameters								

<25

400

ND

<25

852

ND

0.399

ND 45.2/46.2

730

0.94

13/14

2.700

12/12

660

60

ND

48

0.120

ND

0.200

58/58

Total Organic Carbon (mg/L) 46/47

Total Phenols (mg/L)

Cyanide

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

Table 7. Summary of Metals and Miscellaneous Parameters in Ground Water, J.F. Queeny Plant, Monsanto Company, St. Louis, Missouri.

		-			_
Well Number:	MW20	XFB1	XFB1	XFB2	XFB2
Date:	12/86	10/85	12/86	10/85	12/86
USEPA Priority Pollutant					
Metals (Concentrations are					
in ug/L, except where noted)					
Antimony	NA	ND	NA	ND	NA
Arsenic	NA	ND	NA	ND	NA
Beryllium	NA	ND	NA NA	ND	NA
Cadmium	NA	ND	NA	ND	NA
Chromium	NA	ND	NA	ND	NA
Copper	NA	ND	NA	ND	NA
Lead	NA	ND	NA	ND	NA
Mercury	NA	ND	NA	ND	NA
Nickel	NA	ND	NA	ND	NA
Selenium	NA	ND	NA	<5	NA
Silver	NA	ND	NA	ND	NA
Thallium	NA	ND	NA	ND	NA
Zinc	NA	ND	NA	20	NA
Miscellaneous Parameters					
Cyanide	22.5	<25	ND	<25	ND
Total Phenols (mg/L)	ND	<50	ND	133	0.124
Total Organic Carbon (mg/L)	13.5/12.5	ND	2.49/2.34	ND	1.4/1.5

^{*} Replicate sample.

ND Not detected.

NA Not analyzed.

																														Number of
																													1	Wells where
		MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	Compound								
	ll Identification:	1A	1B	2A	2B	3	4	5	6A	6 B	7A	7B	88	88	9	10	11A	11B	11C	12	13	14	15	16	17	18A	18B	19	20	Detected
Parameter																														
Benzene,1-chloro-2-methyl									X				X																	2
Benzene, 1-chloro-3-methyl									X																					1
Benzene,3-methylethyl							X																							1
1-Pentene,4,4-dimethyl											X																			1
1,1,1,2-Tetrachloroethane								X																						1
3-Chlorocyclohexane								X																						1
3,3,3-Trichloro-1-propene		X	X		X		X	X							X					X					X					8
4-Chlorocyclohexanol								X																						1
1,2-Dichlorocyclohexane								X																						1
1-Bromo-2-chlorocyclohexane								X																						1
1,2-Dimethylbenzene												X																		1
1,3-Dimethylbenzene					-1-							X																		1
1,4-Dimethylbenzene												X																		1
Cyclohexane											X																			1
2-(ethenyloxy)-ethanol											X																			1
1,1-oxy-bis-Butane						-1-			-1-				Х																	1
3H-pyrazol-3-one,2,4,-dihydro-5-m	nethyl													X											X					2
Cyclopentene														X											X					2
2-Butoxy ethanol																				X				X				X		3
Benzoic acid, 3-methyl		X	X	Х			-1-						Х	-1-											-1-	X				5
Benzoic acid, 4-(1,1-dimethylethy	/l)	X		X							X															X				4
Dodecanoic acid		X	X	X																			X			X		X		6
Hexadecanoic acid							X																							1
Hexadecanoic acid, 1-methylethyl	ester		X		X						X																			3
Hexadecanoic acid, 1-methyl ester	•					X		X																						2
9-Hexadecanoic acid													X	X	X		-,-											X		4
Hexanedioic acid, dioctylester		X		X																			X							3
		===:	====	====	====	====	====	====	====	====:	====	====	====	====	====	====	====	====	====	====	====	====	====	====	====	====	====	====	====	

Number of Wells where Compound Well Identification: 1A 1B 2A 2B 3 5 6A 6B 7A 7B 8A 8B 9 10 11A 11B 11C 12 13 14 15 16 17 18A 18B 19 20 Detected Parameter Benzenamine, 2-chloro 11 Benzenamine, 3-chloro -- -- X -- -- X X X X X -- X -- -- X X X -- X 12 Benzenamine, 4-chloro 10 5 Benzenamine, 2,6-dichloro Benzenamine, 2, 3-dichloro 2 Benzenamine, 3,5-dichloro -- -- -- X -- -- -- -- -- -- -- -- --Benzenamine, 2-ethyl Benzenamine, 2, 6-diethyl Benzenamine Benzenamine, 4-ethoxy x x -- -- x x -- -- -- x x -- --Benzenamine, 2, 6-bis(1-methylethyl) Benzenamine, N, N, 3, 5-tetramethyl Methanamine, N-(1-phenyl ethylidene) Acetamide, 2-chloro-N-(2,6-diethylphenyl)-N-(methoxy methyl) Diethyl phenol 2-Methylphenol 2-ethoxyphenol Benzenesul fonamide, 2-methyl Benzenesul fonamide, 4-methyl X X X -- X -- -- -- -- -- X -- -- -- X 5 X X X -- X -- -- -- -- -- -- --Benzenesul fonamide, N-ethyl-4-methyl Benzenesul fonamide, N-butyl-4-methyl Benzenesul fonamide, N-cyclohexyl-4-methyl Ethoxybenzene Benzene, 1, 1-sulfonyl bis(2-methyl) Benzene 1-(1,1-dimethylethyl) X -- -- -- -- -- -- -- -- -- --2,6-Decadienoic acid Silane Decanedoic acid 1-H-Furan-6-amine 3

		MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	Number of Wells where Compound
Wel	l Identification:	1A	1B	2A	2B	3	4	5	6A	6B	7A	7B	8A	8B	9	10	11A	11B	11C	12	13	14	15	16	17	18A	18B	19	20	Detected
4-Chlorophenol																												х		3
2-Chloro-4-nitrophenol												X																		1
Cyclohexene,3(chloromethyl)													х																	1
Decane, 2,5,9-trimethyl														х																1
1,3-Isobenzofurandione																	х	х	X	X	X									5
1H-3H-Naphtho(1,8-cd)pyran-1,3-di	one															Х	х	х	X	х	х									6
1H-Idene,2,3-dihydro						х																								1
9,10-Anthracenedione																	х	X	X	X	X									5
IH-Idene-1,3-(2H)-dione																		X												1
1H-Idene-1-one,2-diazo-2,3-dihydr	o-3-phenyl																			X										1
Pyridine,3-ethenyl	at 14. • • • • • • • • • • • • • • • • • • •			••																X										1
1-Propanone, 1-phenyl																					X									1
Benzo(e)cinnoline																					X									1
Benzene, 1, 1-oxybis																									X					1
Nanoic acid																										X	X		X	3
Acetic acid, pentyl ester		X	X		X						X	X	X	X								X	X				X			10
1H-Indole,5-methoxy-2-methyl																												X		1
Octamethyl cyclotetrasiloxane		X														X														2
1,1'-Biphenyl			X																					X						2
Benzene 1,1'-oxybis			X																											1
2-Chloronitrobenzene																	X					X								2
1-Chloro-4-nitrobenzene						X					X	X	X									X				X				6
1-Chloro-3-nitrobenzene											X	X	X								X	X	X			X				7
1-Chloro-2-nitrobenzene		X		X		X					X	X	X													X				7
1-methylethyl benzene							Х																							1
3H-Indole-3-one,2-(methylthio)									X	X																				2
3H-Indazol-3-one													X																	1
3-Phenyl pyridine													X																	1
Nonane, 2-methyl														X												X				2
Nonane, 2,8-dimethyl-4-methyl		1-1-1												X																1

Well Identification: Parameter	MW 1A	MW 1B	MW 2A	MW 2B	MW 3	MW 4	M₩ 5	MW 6A	м ₩ 6В	MW 7A	мы 7в	MW 8A	MW 8B	MW 9	MW 10	MW 11A	MW 11B	M₩ 11C	MW 12	MW 13	MW 14	MW 15	MW 16	MW 17	MW 18A	MW 18B	MW 19	MW	Number of Wells where Compound Detected
Decane, 2-methyl													X																1
Decane, 2,4-dimethyl													X	• •															1
Decane, 3,8-dimethyl													X																1
Undecane, 3,8-dimethyl													X																1
Cyclopropane, nonyl													X																1
Cyclopentane, 1-pentyl-2-propyl													X												-1-		- 1-		1
7-Hexadecane													X																1
2-Undecene,5-methyl													X																1
Phosphoric acid triethyl ester															X														1
Elemental sulfur			X			-	X						X			X											X		5
Cyclotetradecane																X									-1-				1
1H-Indene-1-one,2,3-dihydro																	X											X	2
Phenol, 2, 6-bis(1, 1-dimethylethyl)-4-methyl																	X												1
Decanedoic acid, bis(2-ethylhexyl)ester																	X			X									2
Methanamine, N-(1-phenylethylio) **																									X	X			2
7-Chlorobenzofuran																				X						X			2
1-Methylnaphthalene																								X	X				2
Octadecanoic acid																				-1-					Х				1
Isopropyl myristate				X			Х																					-1-	2
Tosyl derivative of ethylamine						X																							. 1
1-H-imidazole,4,5-dihydro						X																							1
3-Nitro,1,2-Benzenedicarboncylic acid	X												X							-1-									2
1,1-Biphenyl,2-fluoro-2-(4-methoxy-phenyl)						X																X							2
1-(1,1-dimethylethyl)-4-ethoxybenzene																X													1
Anthraquinone-1-carboxylic acid																	X												1
4-4-(1-methyl ethylidene)(bis)phenol										X																			1
1-methyl-2-pyrrolidinone										X						X													2
2-phenyl-4-acetyl-5-bromo-thiazole						X																							1
2-Cyclohexane-1-one	X																				-1-			44					1
Benzothiazole	X								•					••															1

Number of Wells where

																													Wells where
	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	MW	Compound
Well Identification:	: 1A	18	2A	2B	3	4	5	6 A	6B	7A	7B	88	8B	9	10	11A	11B	11C	12	13	14	15	16	17	18A	18B	19	20	Detected
Parameter 																													
Benzoic acid		X	X																										2
2-Ethyl hexanoic acid			X		••							X																	2
Benzaldehyde,4-hydroxy-3-methoxy			X																										1
Phenol, 4-nonyl			X																										1
Fluorobiphenol							X															X				X			3
3-Penten-2-one,4-methyl							X																						1
Methylbenzene								X		X	X		X												X	X			ć
Chlorobenzenamine (NOS)					X		X	X		X					X											X			ť
Chloromethyl benzene (NOS)								X																					1
Benzeneamine, dichloro (NOS)					X			X	X																				3
1,3-Dinitrobenzene			- 1-					X																					1
2,5-Cyclohexadiene-1,4-Dione									X																				1
Alkane (NOS)							X			X															X				3
Cyclohexene (NOS)	X		X							X		X	X					X								X			7
2-chloro-5-methyl Pyridine										X										-1-									1
2-chloro-5-nitrobenzenamine											X																Х		2
1-Bromo-4-nitrobenzene											X																		1
1,4-dichloro-2-nitrobenzene											X																		1
(Butoxymethyl)benzene												Х																	1
2-naphthalene carboxylic acid								-1-								х													1
Ethenyl cyclobutane													X													Х			2
2-methyl-3-hydroxy-2,4,4-trimethyl pentyl ester														Х															1
Pentadecafluoro-octanoic acid														Х															1
Diphosphoric acid, tetraethyl ester															х								Х						2
Propanoic acid, 2-methyl-1,1(1,1-dimethyl(ether))		Х	х	X		Х	X								X														6
-2-methyl-1,3-propanediyl ester		ement)					1010																						
1H-Idene, 1-ethylidene																	X							-1-					1
Tetradecane																	X												1
Tetradecane-2-methyl										• •							X												1
4,7-dimethyl-1,3-Isobenzofurandione																	x												1

Parameter	Well Identification:	MW 1A	MW 1B	MW 2A	MW 2B	MW 3	MW 4	MW 5	MW 6A	MW 6B	MW 7A	MW 7B	MW 8A	MW 8B	MW 9	M₩ 10	MW 11A	MW 11B	MW 11C	MW 12	MW 13	MW 14	MW 15	MW 16	M₩ 17	MW 18a	M₩ 18B	MW 19	Number of Wells where Compound Detected
rai alietei																													
Biphenylene																		X											 1
9H-Fluoren-9-one																		X											 1
11H-dibenzo[c,f],[1,2]diazopi	ne																	Х											 1
1(3H)-Isobenzofuranon,3-(3-ox	a-1(3H))-isobenzofuran																	X											 1
2-cyclohexen-1-01																			X										 1
Tridecane,5-propyl																			X										 1
2-Propenoic acid, 3-phenyl-met	hylester																		X										 1
2-Penten, 3, 4-dimethyl																			X										 1
5,5-phenyl-2(5H)-Furanone																					X								 1
2-Propanol																						X							 1
2-Butanol, 2, 3-dimethyl			••																					X					 1
Undecane, 4, 6-diemthyl																								Х					 1
Decane, 2, 3, 5-trimethyl																								X					 1
Decane,5-propyl																								X					 1
Ethylcyclobutane																									X				 1
Benzenamine hydrochloride																									х				 1
2-Methyl naphthalene																										X			 1
Methyl cycloheptane																												X	 1
2,4-Diemthyl hexane																												X	 1
3-ethyl-3-heptene																												Х	 1
Benzene, 1-ethenyl-2-methyl																												Х	 1
Pentanoic acid				X																									 1
2-Ethylhexanoic acid				X																									 1
4-hydroxy-3-methoxy benzaldeh	yde			X																									 1
2,3-dihydro-1H-Indene					••		X																						 -1

			MW		MW	MW		MW	MW	MW	MW	MW	MW	MW	MU	MW		MW	MW		MW	MW	MW	MW		MW		MW	MW	Number of Wells where Compound
We	ell Identification:	1A	1B	2A	2B	3	4	5	6A	6B	7A	7B	8A	8B	9	10	11A	11B	11C	12	13	14	15	16	17	18A	18B	19	20	Detected
Parameter																														
Chloro N-diethyl phenyl methoxy-	acetamide							X																						1
Benzenemethanethiol									X																					1
4-Methyl benzenesulfonamine										X																				1
Trimethyl benzene												X																		1
Chloronitrobenzene												X	X													X				3
Phenol, 2-ethoxy									-1-				X																	1
4-(Diethylamino)-benzaldehyde													X																	1
Dibenzofuran																					X									1
Benzeneacetic acid																						X								1
Total Nu	mber of Compounds:	13	9	16	5 ====	9	15	16	19	12	26	20	32	22	4 ====	10	10	16	9	11	16	11 ====	8	8	12 ====	22	16	12	6	

NOTE: NOS = Not otherwise specified

- * These compounds have been tentatively identified by Envirodyne Engineers, Inc. of St. Louis, Missouri, and ETC of Edison, NJ. As the organic group for many of these compounds could not be agreed upon by the laboratories, this list of compounds has not been separated into the categories of volatile organics, acid extractable and base/neutral extractable compounds.
- X Tentative identification without quantification.
- ** This incomplete compound name appears in the original table.

Blanks indicate not detected.

Table 9. Concentration of Tetrachloroethylene (PCE) in Soil Samples Collected in the Vicinity of the Leaking PCE Tank, J.F. Queeny Plant, Monsanto Chemical Company, St.Louis, Missouri.

Boring	Depth of Sample	Screening Results	PCE Concentration
Number	(ft)	(ppm HNu units)	(micrograms/kilogram)
A	10 - 11.5	30	Not detected
В	10 - 11.5	20	225.3
С	10 - 11.5	110	104.6
D	10 - 11.5	20+	Not detected
E	5 - 6.5	100	1,933.0
F	Not collected		
G	10 - 11.5	10	Not detected
Н	10 - 11.5	70	33.3

Samples were collected by ESE and analyzed by ETC.

ppm Parts per million.

Table 10. Concentration of Tetrachloroethylene (PCE) in Ground-Water Samples Collected in the Vicinity of the Leaking PCE Tank, J.F. Queeny Plant, Monsanto Chemical Company, St. Louis, Missouri.

Well Identification	PCE Concentration (micrograms/liter)
MW-A	225,832
MW-A*	859,560,000
MW-B	27,954.2
MW-C	Not detected
MW-D	Below detection limit

^{*} Sample of free-phase liquid in bottom of well.
Samples were collected by ESE and analyzed by ETC.

Table 11. Concentrations of Alachlor and Associated Compounds in Ground-Water Samples Collected near the Lasso Production Area, J. F. Queeny Plant, Monsanto Chemical Company, St. Louis, Missouri.

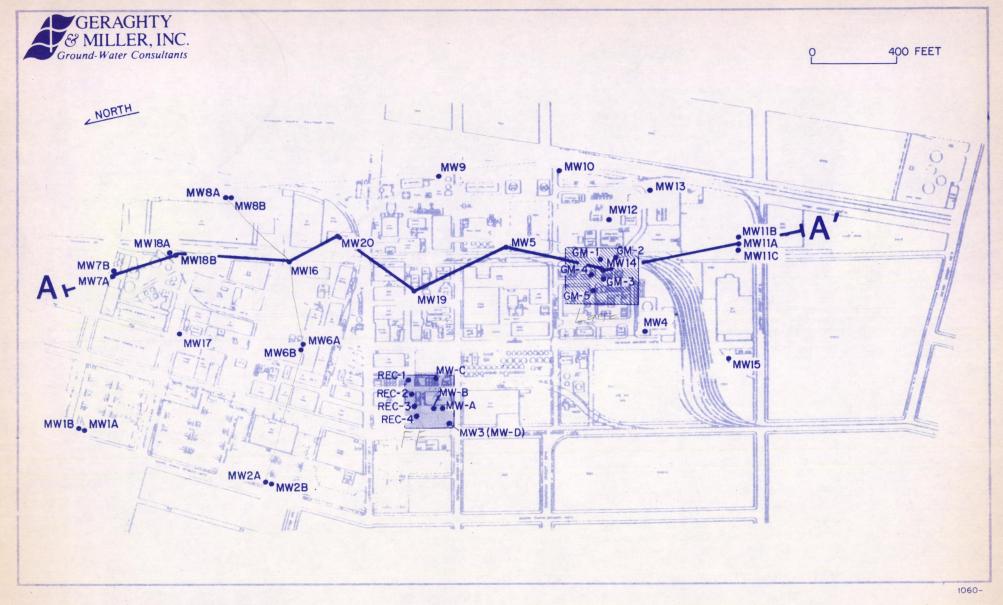
Well Designation								
Parameter	Detection Limits (mg/L)	G M- 1	GM-2	GM-3	GM-4	GM- 5	MW-14	Solubility in Water
Alachlor	3	169	162	6	ND	4	1,010	100 mg/L @ 10 ^O C
Chlorobenzene	50	143	114	42	ND	770	409	500 mg/L @ 20 ⁰ C
2,6-Diethylaniline	3	ND	ND	44	1,807	ND	23	14,000 mg/l @ 12 ^O C
Acetyl alachlor	10	20	24	29	ND	ND	67	100 mg/L @ 20 ^O C
CP31679	10	20	10	ND	ND	ND	ND	~ 100 mg/L @ 20 ^O C
Unidentified high boilers	-	ND	ND	ND	1,785	2	99	-

ND Not detected.

Samples were collected by Geraghty & Miller, Inc. and analyzed by Monsanto.

Not determined.

mg/L Milligrams per liter.



MW5

WELL DESIGNATION AND LOCATION



AREA OF LASSO INVESTIGATION



AREA OF PCE INVESTIGATION

WELL LOCATIONS AND LINE OF SECTION A-A'

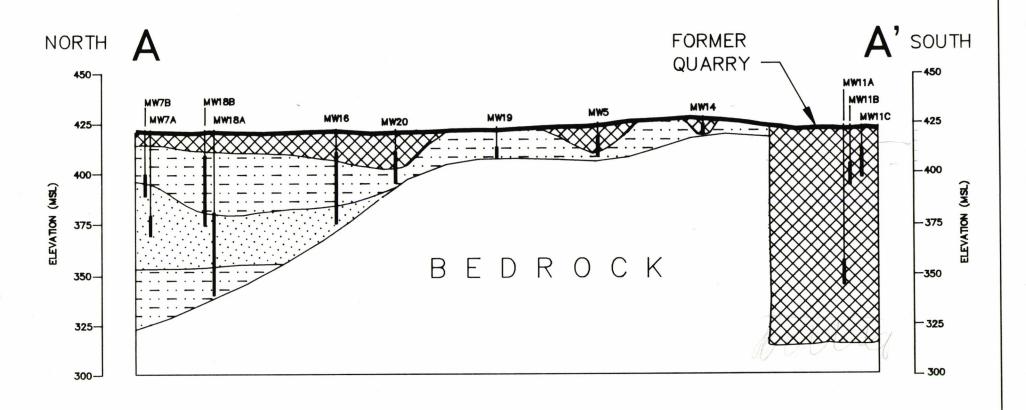
MONSANTO CHEMICAL COMPANY



COMPILED BY:		L. Musiker	DATE: 3-88	SCALE:
PREPARED BY:	G.	Schaffner		SHOWN
PROJECT		D. Colton	N308QU	3-1060

PREPARED FOR:

MONSANTO CHEMICAL COMPANY J.F. Queeny Plant/ St. Louis, Missouri





 \bigotimes

FILL MATERIAL

SAND AND GRAVEL

- - -

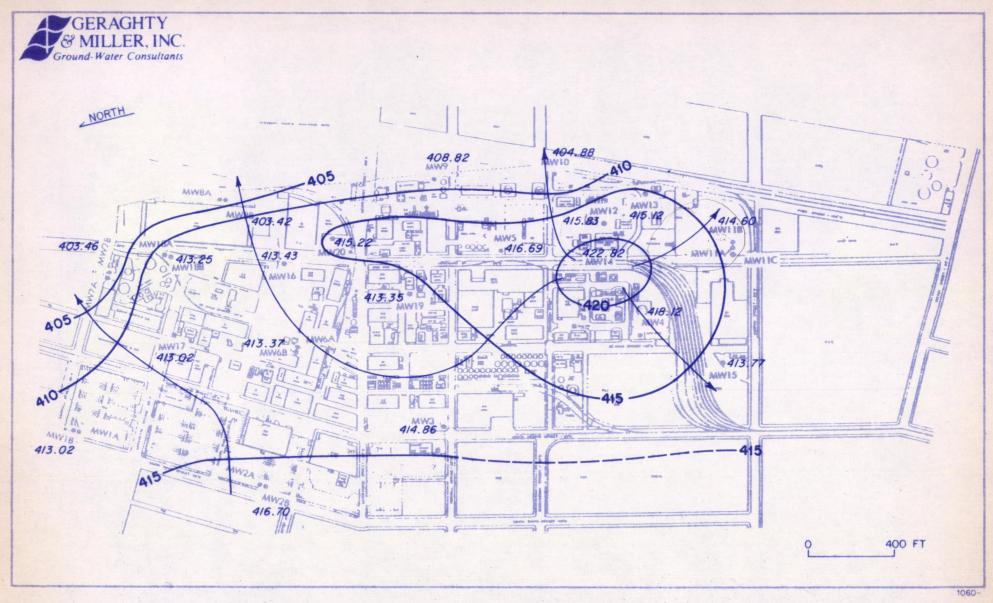
SILT, CLAY, AND SILTY SAND

O 500 FT

(VERTICAL EXAG. = 5X)

SUBJECT:

GENERALIZED HYDROGEOLOGIC CROSS SECTION



MWIB WELL DESIGNATION AND LOCATION

413.02 WATER-LEVEL ELEVATION

410 ____ LINE OF WATER-LEVEL ELEVATION, IN FEET ABOVE MEAN SEA LEVEL

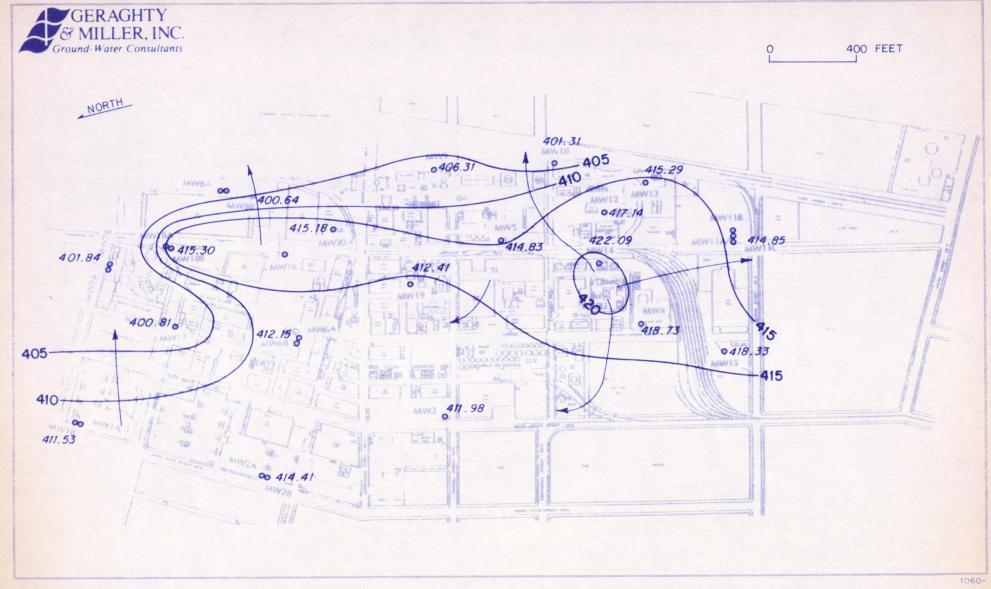
GROUND-WATER FLOW DIRECTION

NOTE WATER-LEVEL MEASUREMENTS MADE BY ESE

CONFIGURATION OF THE WATER TABLE APRIL 17-24, 1985

MONSANTO COMPANY

J.F. QUEENY PLANT St. Louis, Missouri



OMWIB WELL DESIGNATION AND LOCATION

414.41 WATER-LEVEL ELEVATION

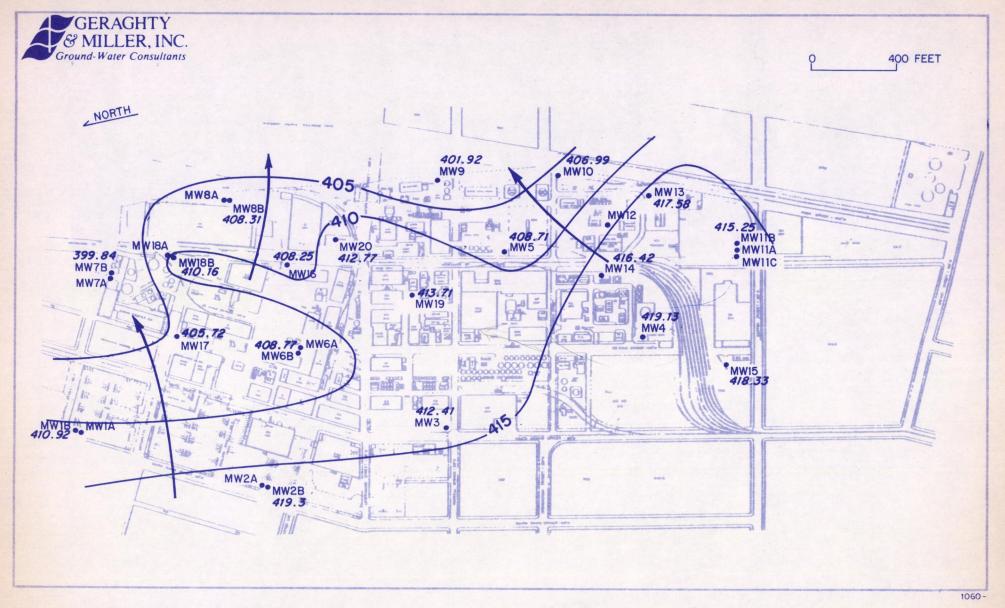
410 - LINE OF WATER-LEVEL ELEVATION IN FEET ABOVE MEAN SEA LEVEL

GROUND - WATER FLOW DIRECTION

NOTE . WATER - LEVEL MEASUREMENTS MADE BY ESE

CONFIGURATION OF THE WATER TABLE DECEMBER 1, 1986

MONSANTO CHEMICAL COMPANY



MW5 WELL DESIGNATION AND LOCATION

408.71 WATER-LEVEL ELEVATION

-405- LINE OF WATER-LEVEL ELEVATION, IN FEET ABOVE MEAN SEA LEVEL

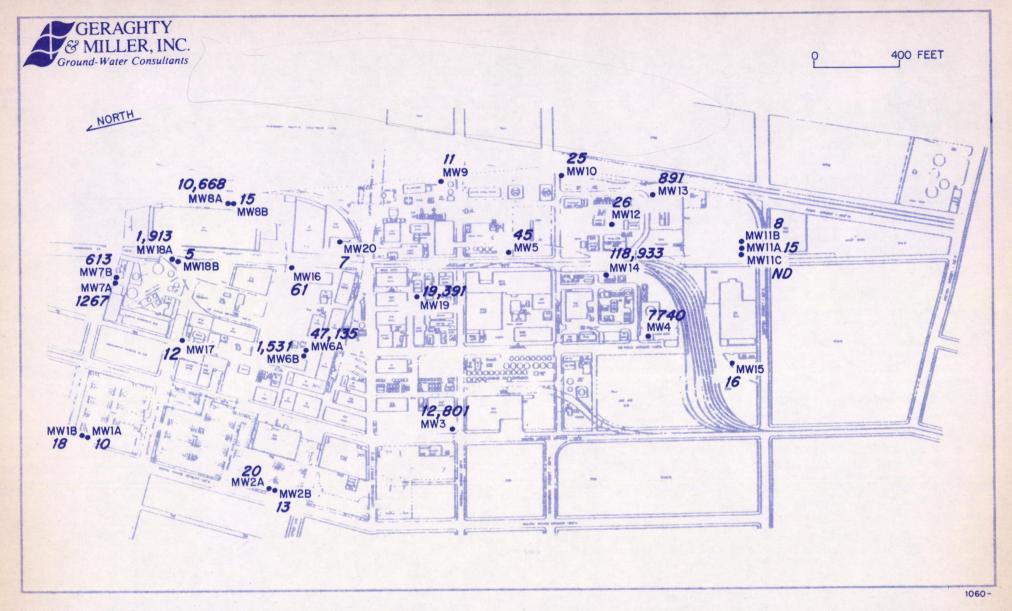
GROUND - WATER FLOW DIRECTION

NOTE WATER-LEVEL MEASUREMENTS MADE BY ESE

CONFIGURATION OF THE WATER TABLE SEPTEMBER 23, 1987

MONSANTO CHEMICAL COMPANY

J.F. QUEENY PLANT St. Louis, Missouri



MW5 WELL DESIGNATION AND LOCATION

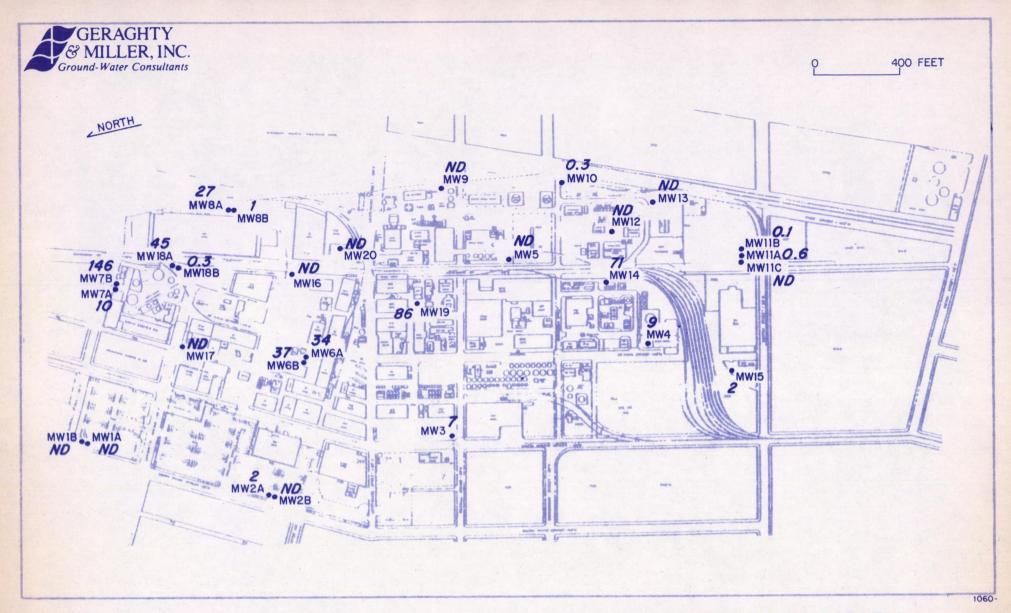
25 MEAN TOTAL VOLATILE ORGANIC COMPOUNDS, MICROGRAMS PER LITER

NO NOT DETECTED

DISTRIBUTION OF MEAN TOTAL VOLATILE ORGANIC COMPOUNDS IN GROUND WATER

MONSANTO CHEMICAL COMPANY

J.F. QUEENY PLANT St. Louis, Missouri



MW5 WELL DESIGNATION AND LOCATION

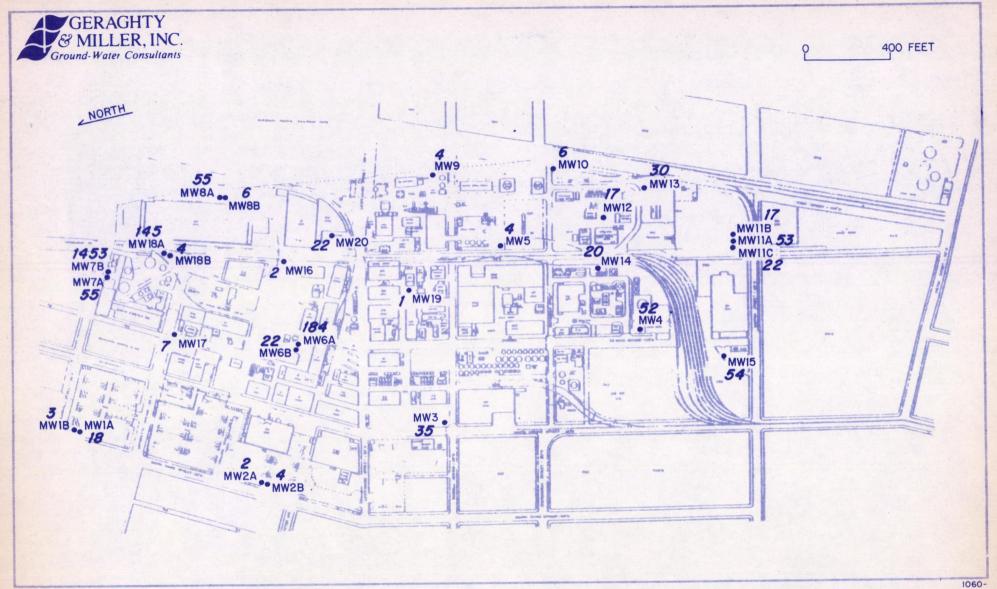
MEAN TOTAL ACID EXTRACTABLE ORGANIC COMPOUNDS, MICROGRAMS PER LITER

NO NOT DETECTED

6.5

DISTRIBUTION OF MEAN TOTAL ACID EXTRACTABLE ORGANIC COMPOUNDS IN GROUND WATER

MONSANTO CHEMICAL COMPANY



MW5 WELL DESIGNATION AND LOCATION

4.4 MEAN TOTAL BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS, MICROGRAMS PER LITER

DISTRIBUTION OF MEAN TOTAL BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS IN GROUND WATER

MONSANTO CHEMICAL COMPANY

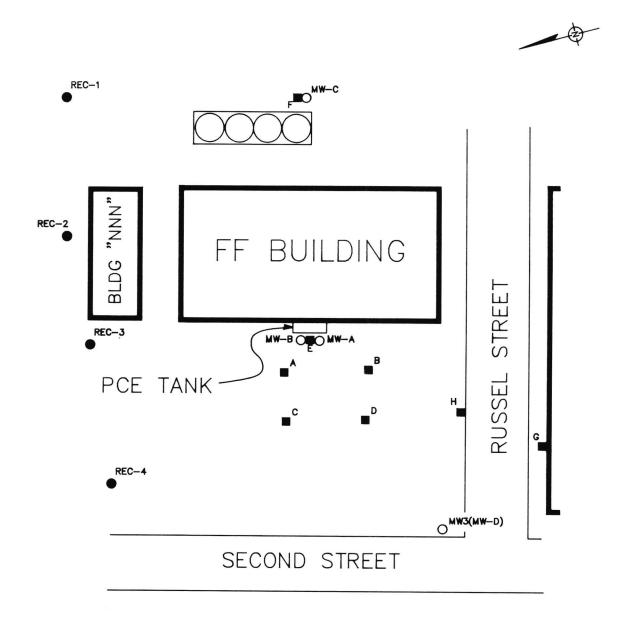


COMPLED L. Musiker
PREPARED G. Schaffner
PROJECT D. Colton

N308QU3—1060
C.F. NAME:
MONST—QB

shown
DATE:
3-88

MONSANTO CHEMICAL COMPANY
J.F. Queeny Plant/St. Louis, Mo.



EXPLANATION

REC-4

BROTCKE ENGINEERING RECOVERY WELL

MW-A

ESE MONITORING WELL

C

ESE SOIL BORING

0 50FT

SUBJECT:

SOIL BORING AND MONITORING WELL LOCATIONS IN THE VICINITY OF FF BUILDING



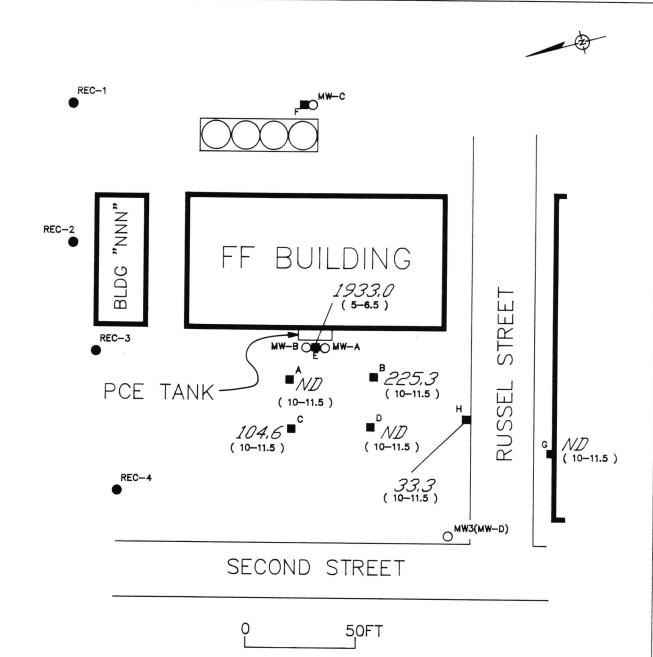
COMPILED BY:	L. Musiker
PREPARED BY:	G. Schaffner
PROJECT	D. Colton

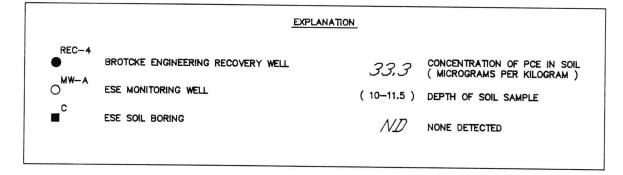
LE NOEX:	SCALE
N308QU3-1060	sho
F. NAME:	DATE:

3-88

PCE-SOIL

MONSANTO CHEMICAL COMPANY
J.F. Queeny Plant/St. Louis, Mo.





SUBJECT:

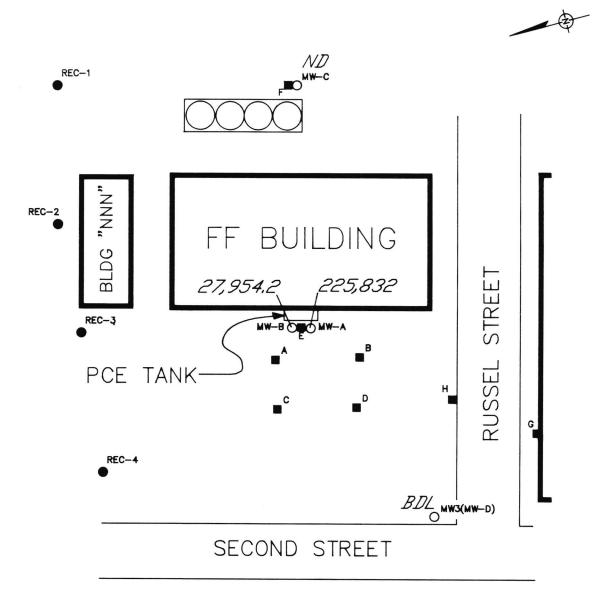
CONCENTRATION OF PCE IN SOIL



COMPILED BY:	L. Musiker
PREPARED BY:	G. Schaffner
PROJECT	D. Colton

FILE INDEX	SCALE:
N308QU3-1060	shown
C.F. NAME:	DATE:
PCE-CONC	3-88

MONSANTO CHEMICAL COMPANY J.F. Queeny Plant/St. Louis, Mo.



0 50FT

EXPLANATION REC-4

BROTCKE ENGINEERING RECOVERY WELL

MW-A

ESE MONITORING WELL

ESE SOIL BORING

225,832 GROUND

CONCENTRATIONS OF PCE IN GROUND WATER (MICROGRAMS PER LITER)

NONE DETECTED

BDL BELOW DETECTION LIMIT

SUBJECT:

CONCENTRATION OF PCE IN GROUND WATER

FIGURE

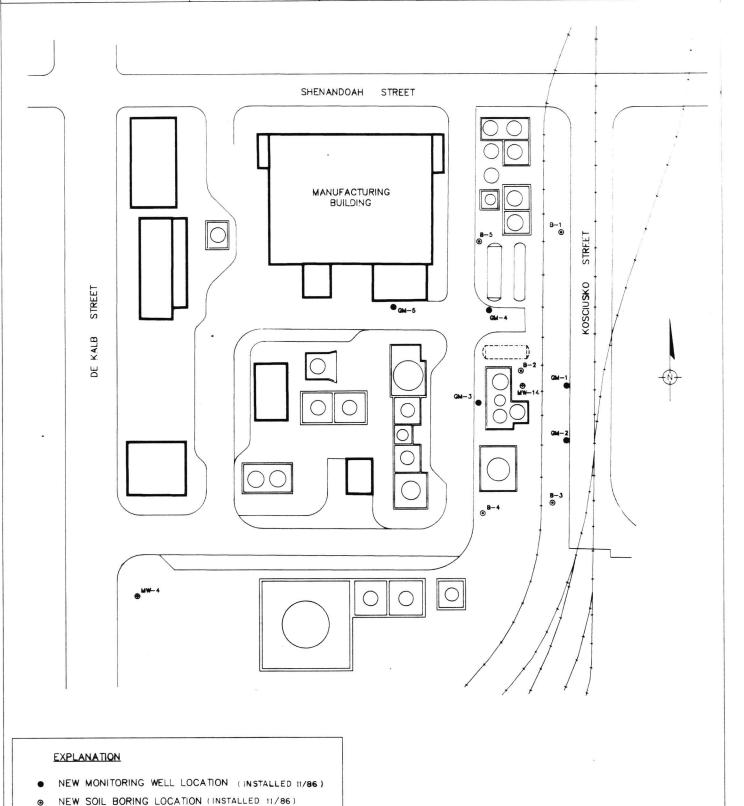
11



| COMPILED | B.A. Blum | DATE: | SCALE: | 9-87 | Shown | | Shown | Sho

MONSANTO CHEMICAL COMPANY

J.F. Queeny Plant / St. Louis, Missouri



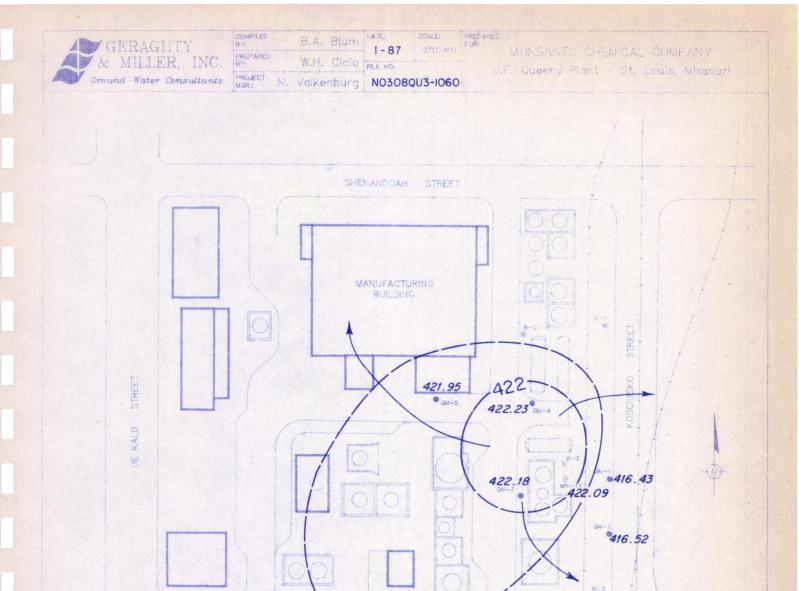
SUBJECT:

EXISTING MONITORING WELL

SOIL BORING AND MONITORING WELL LOCATIONS IN THE VICINITY OF THE LASSO PRODUCTION AREA

FIGURE

50 FEET



. NEW MONITORING WELL LOCATION

418.73

MEW SOIL BORING LOCATION

EXISTING MONITORING WELL

418.73 WATER-LEVEL ELEVATION

-420-LINE OF EQUAL WATER-LEVEL ELEVATION, IN FEET ABOVE MSL (DASHED WHERE INFERRED)

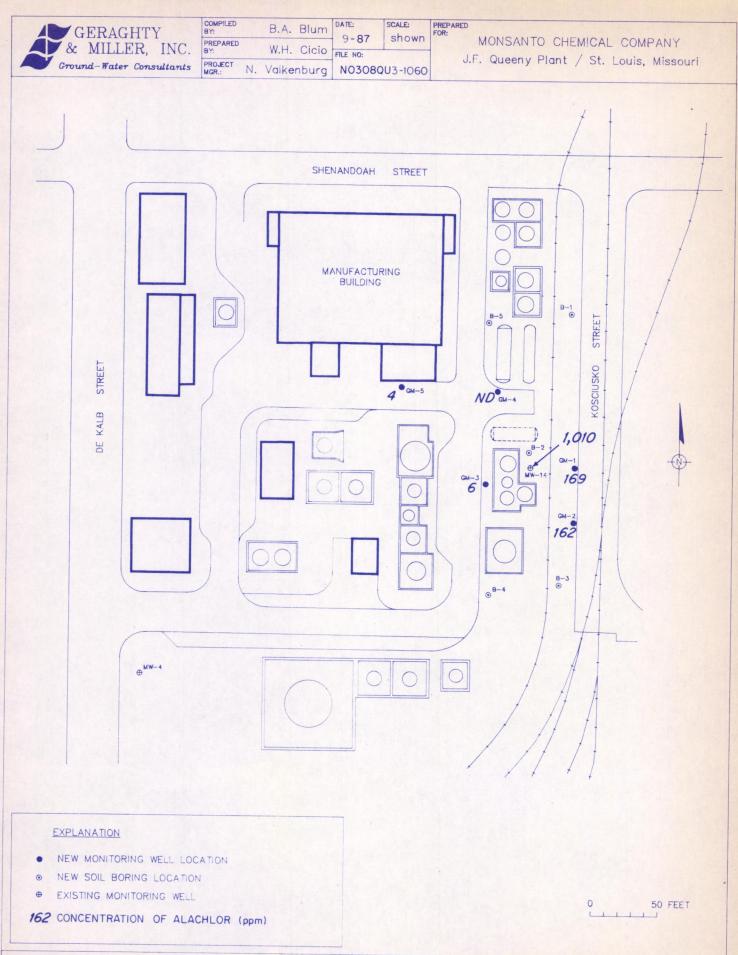
GROUND-WATER FLOW DIRECTION

420

O 50 FEET

SUBJECT:

CONFIGURATION OF THE WATER TABLE IN THE VICINITY OF THE LASSO PRODUCTION AREA - DECEMBER 1, 1986



SUBJECT:

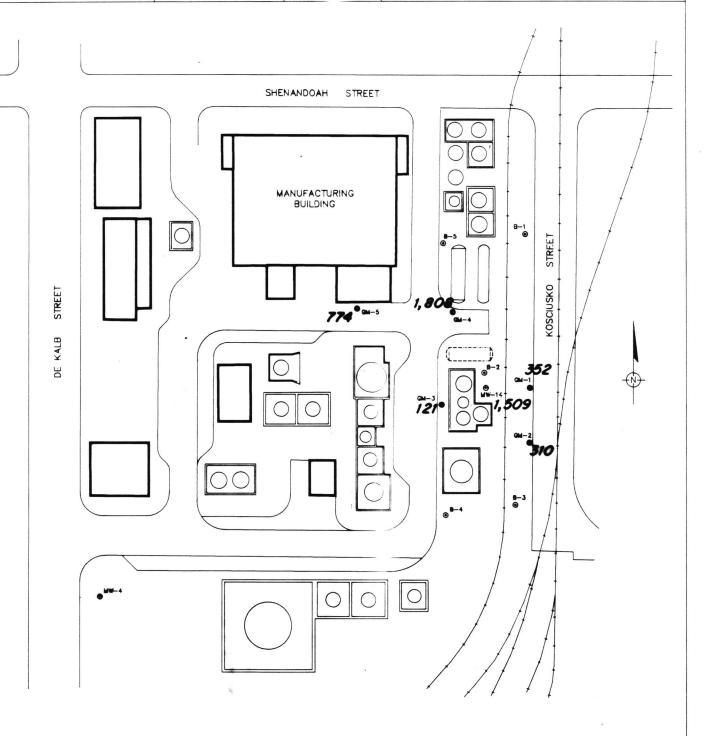
DISTRIBUTION OF ALACHLOR IN THE VICINITY OF THE LASSO PRODUCTION AREA - DECEMBER 1986



COMPILED B.A. Blum DATE: SCALE:
9-87 Shown
PREPARED W.H. Cicio
PROJECT N. Valkenburg NO308QU3-1060

MONSANTO CHEM!CAL COMPANY

J.F. Queeny Plant / St. Louis, Missouri



EXPLANATION

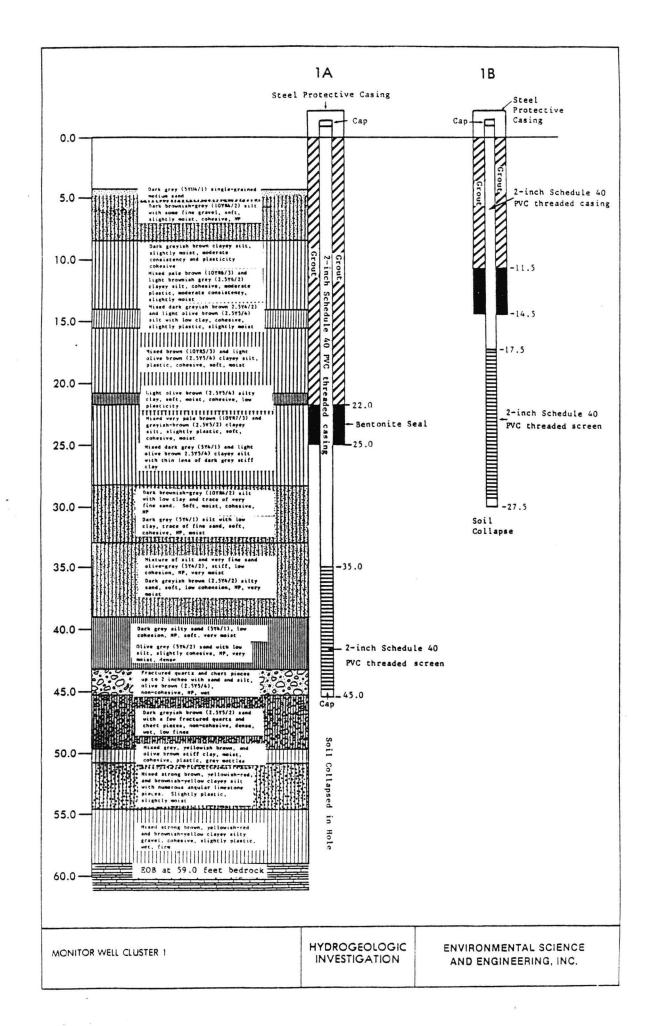
- NEW MONITORING WELL LOCATION
- NEW SOIL BORING LOCATION
- EXISTING MONITORING WELL

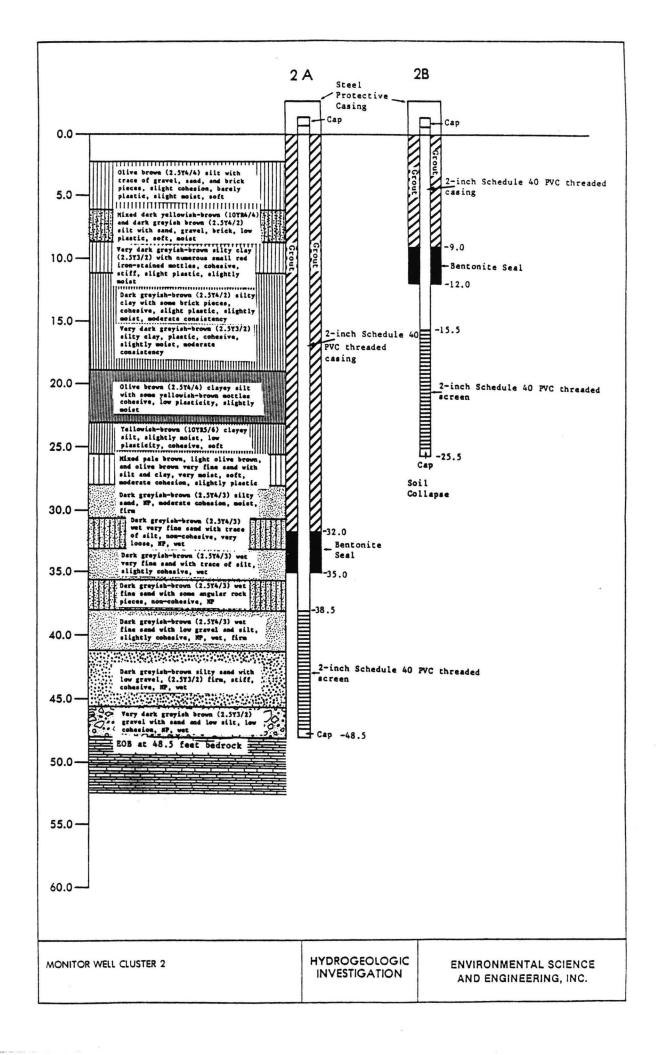
310 CONCENTRATION OF COMPOUNDS ASSOCIATED WITH LASSO PRODUCTION (ppm)

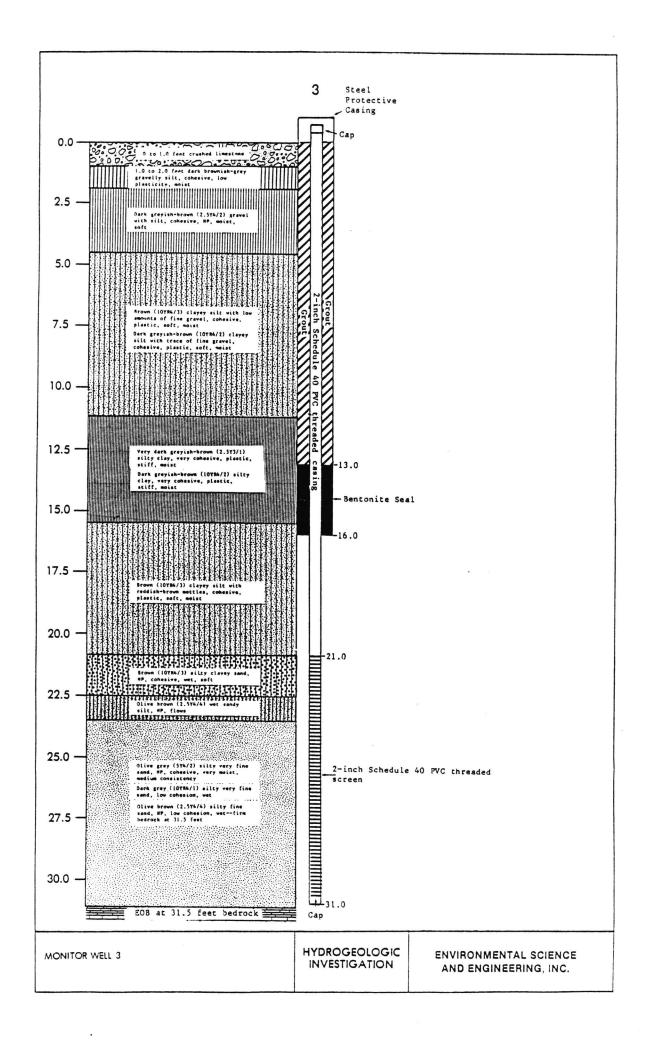
50 FEET

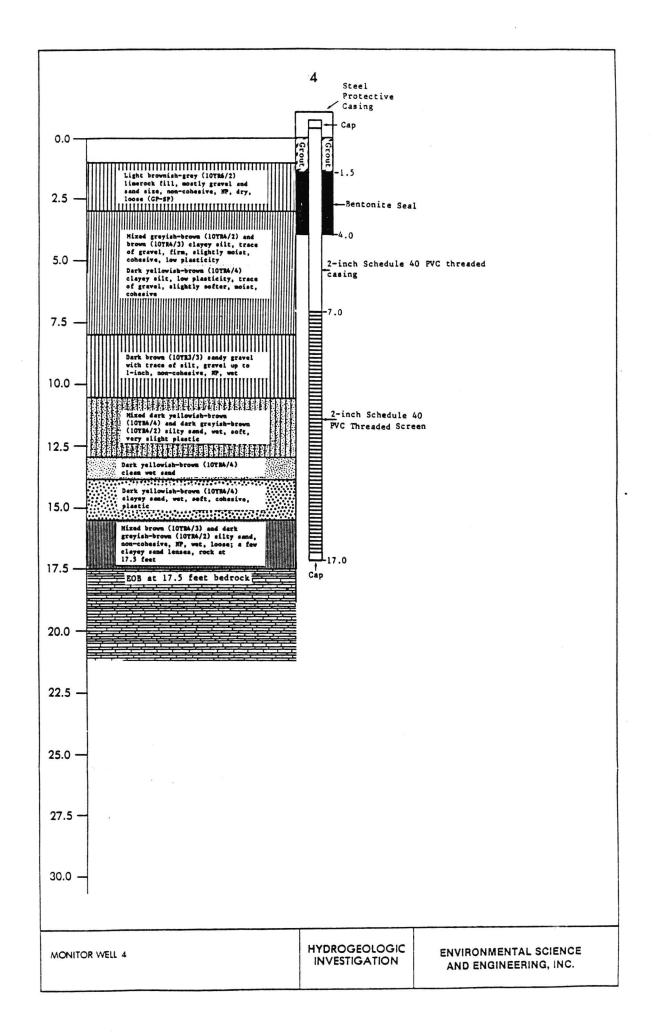
SUBJECT:

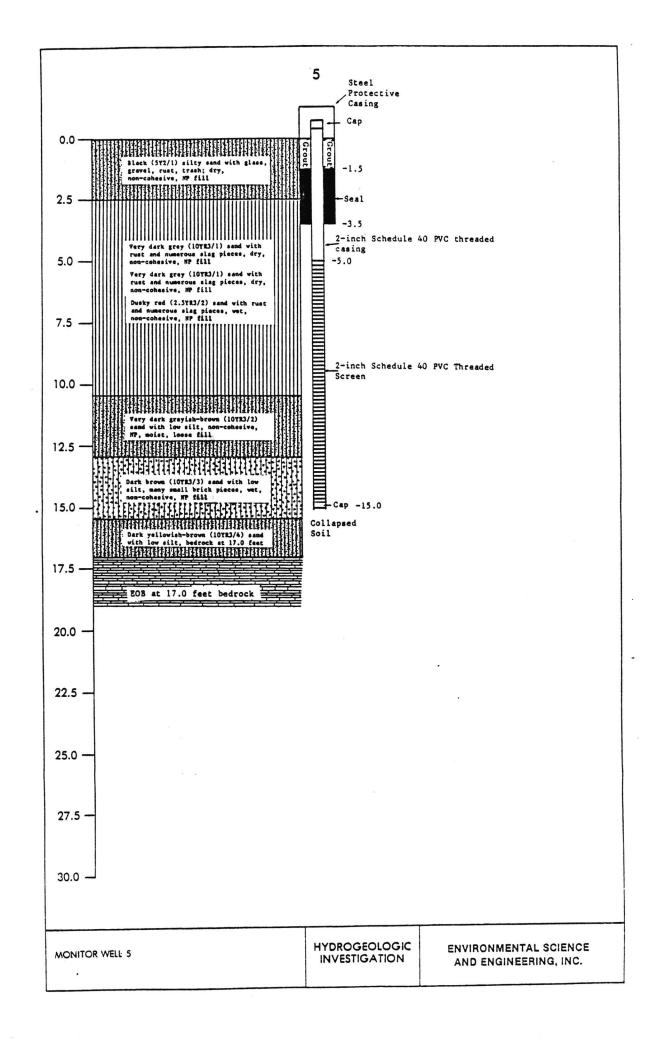
DISTRIBUTION OF COMPOUNDS ASSOCIATED WITH LASSO PRODUCTION-DECEMBER 1986

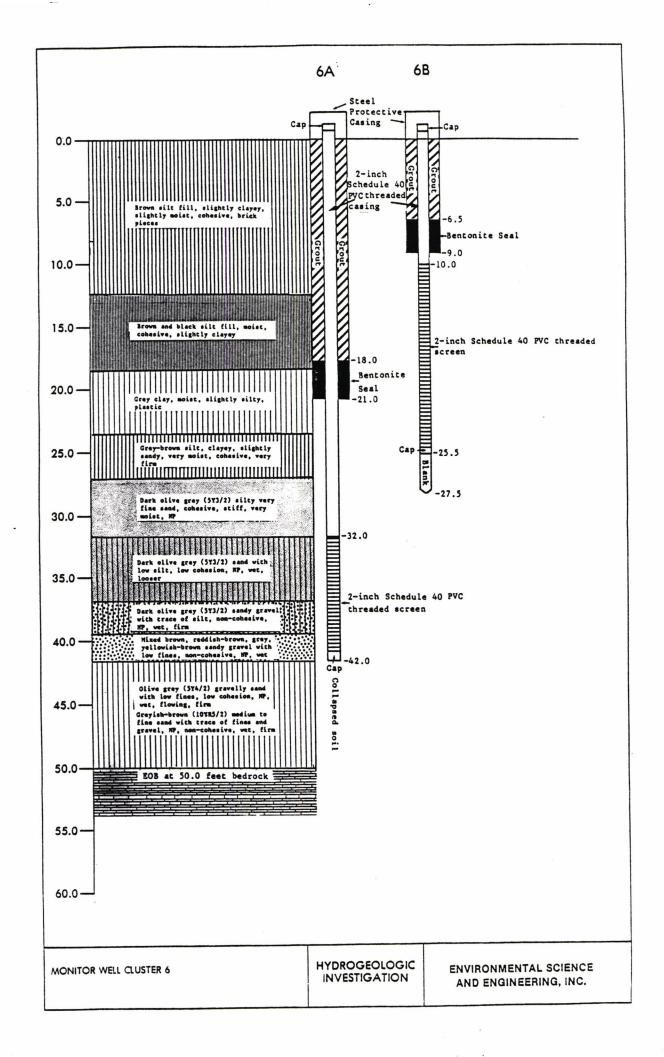


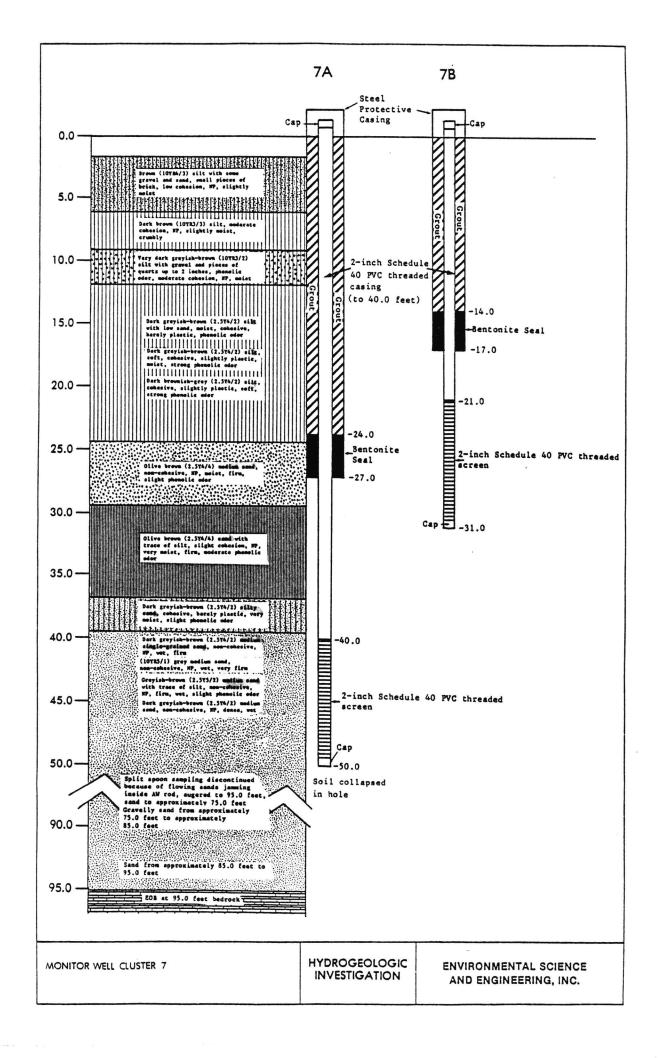


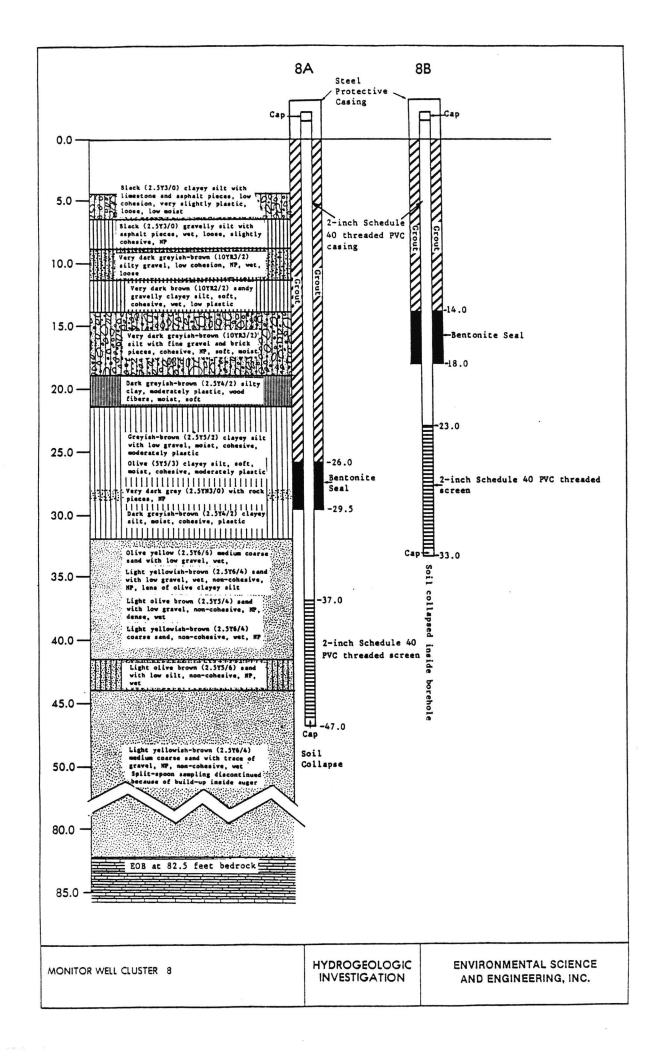


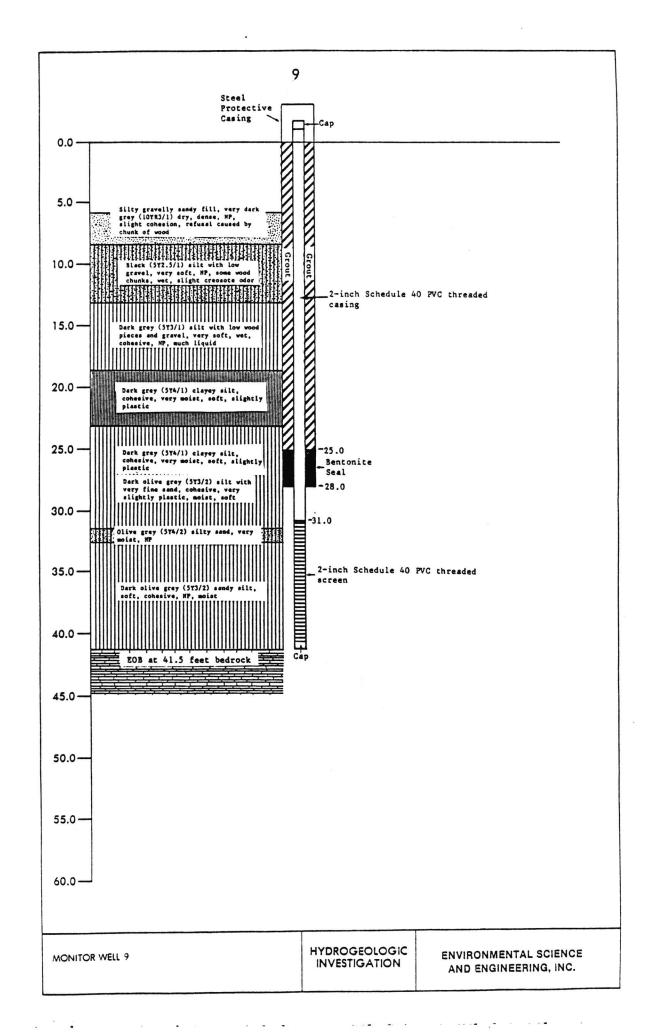


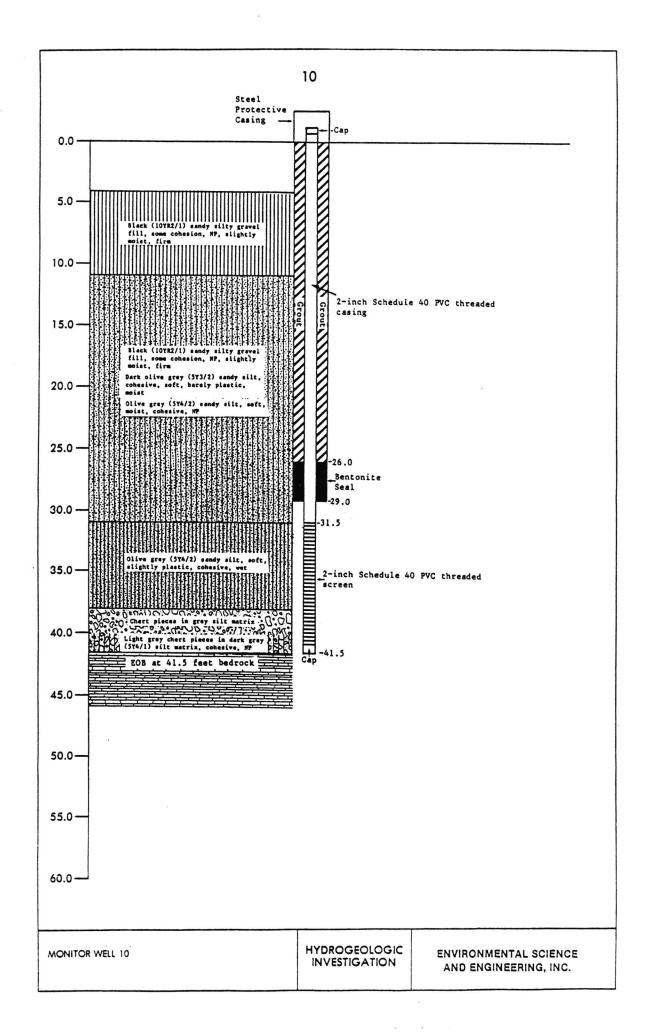


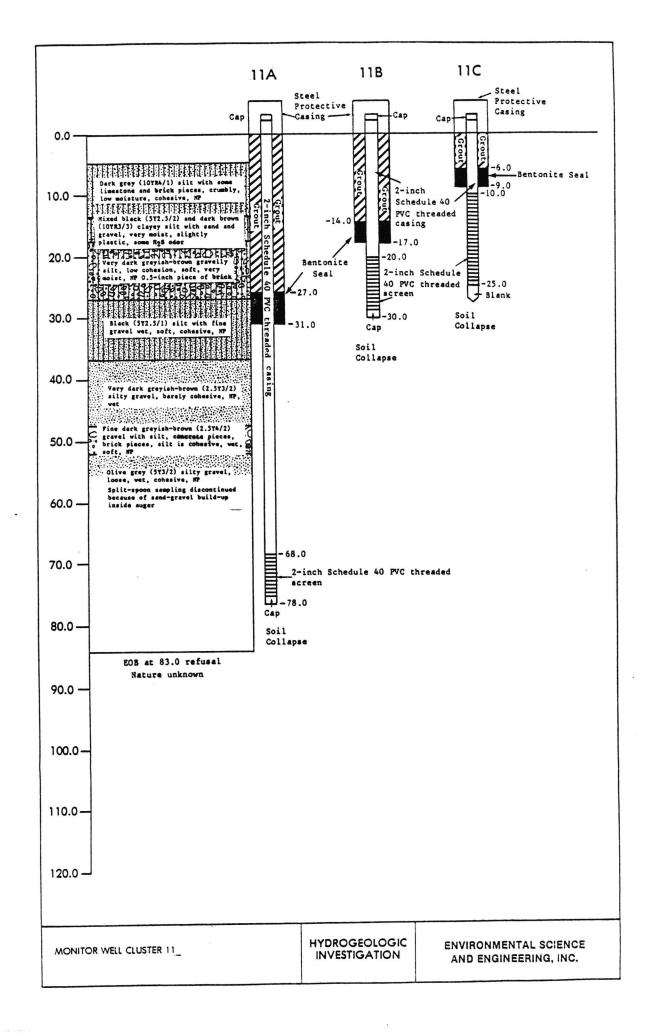


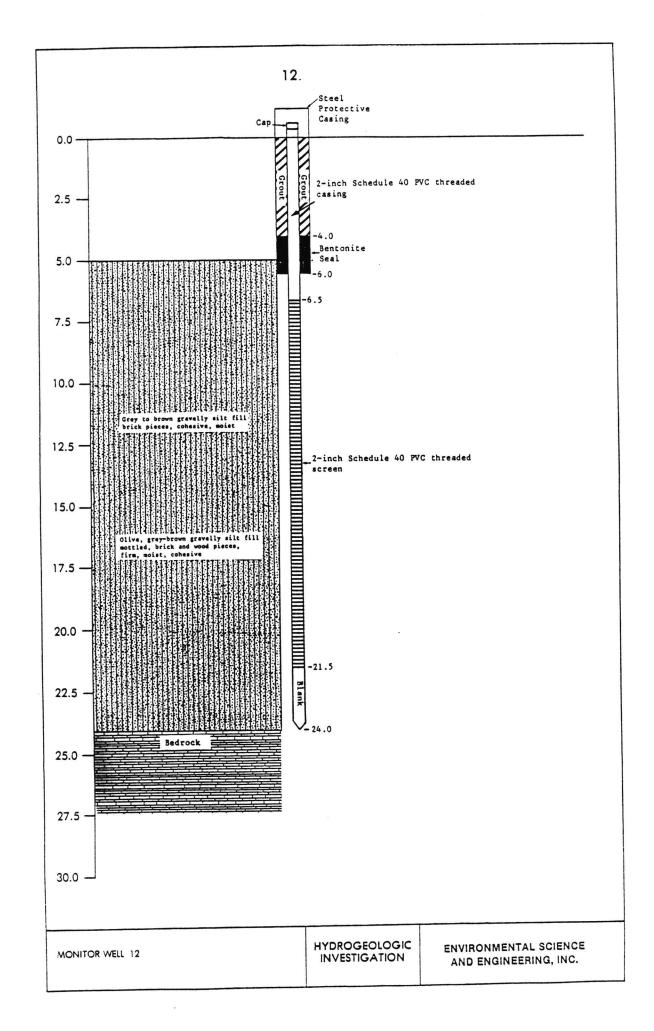


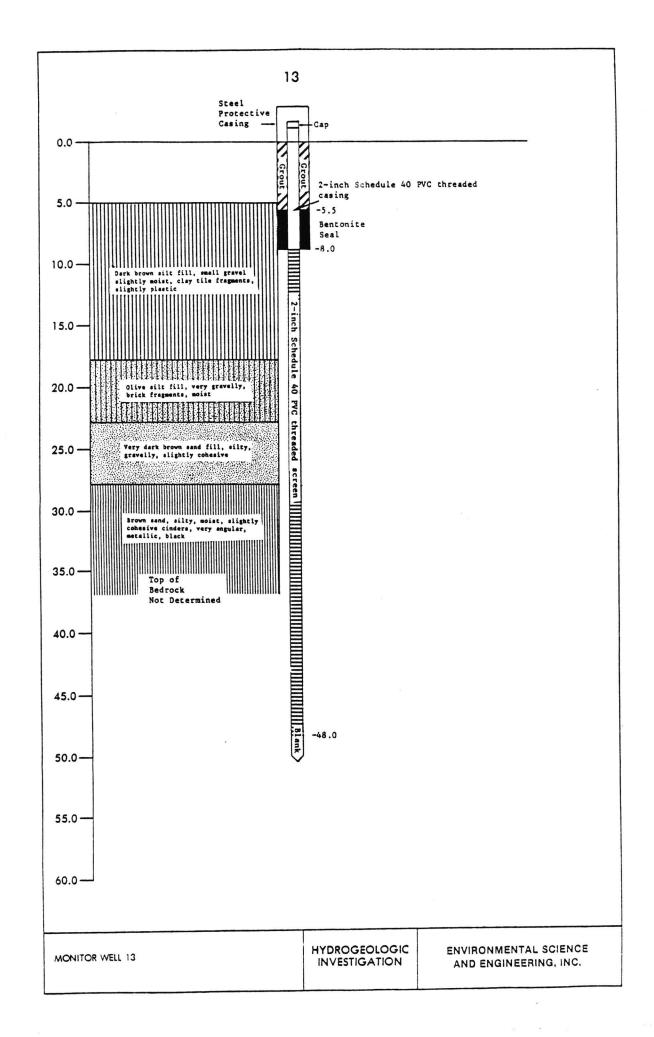


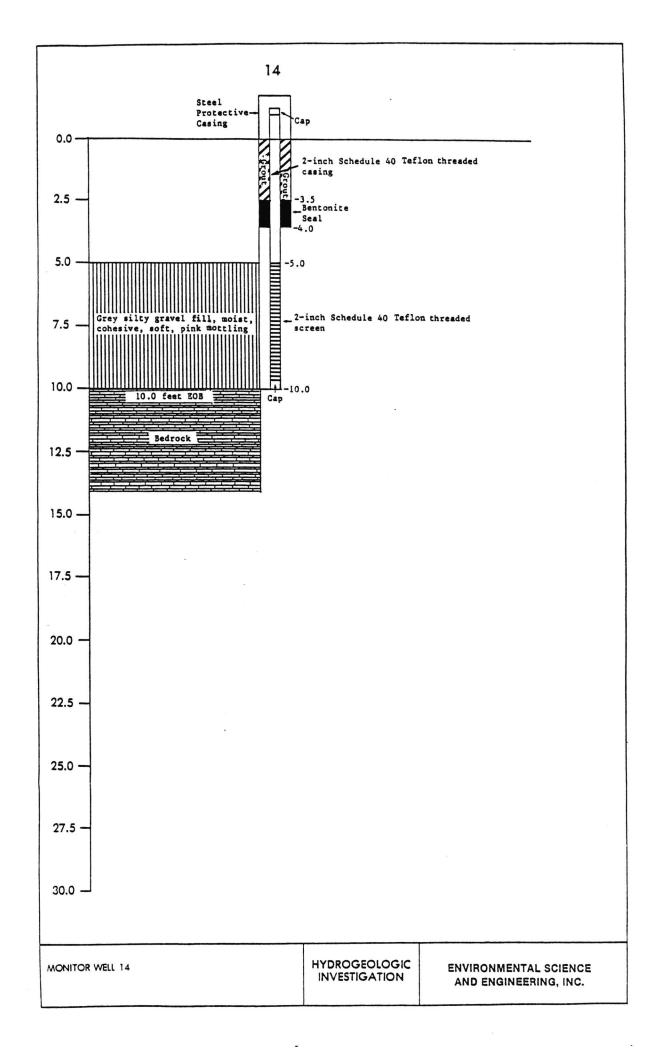


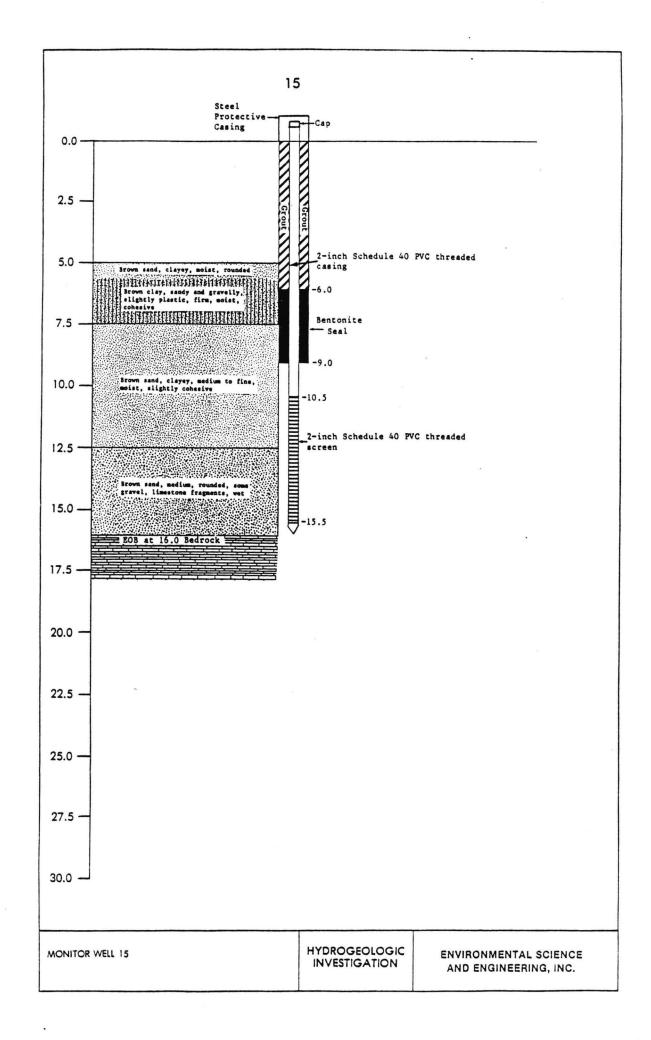


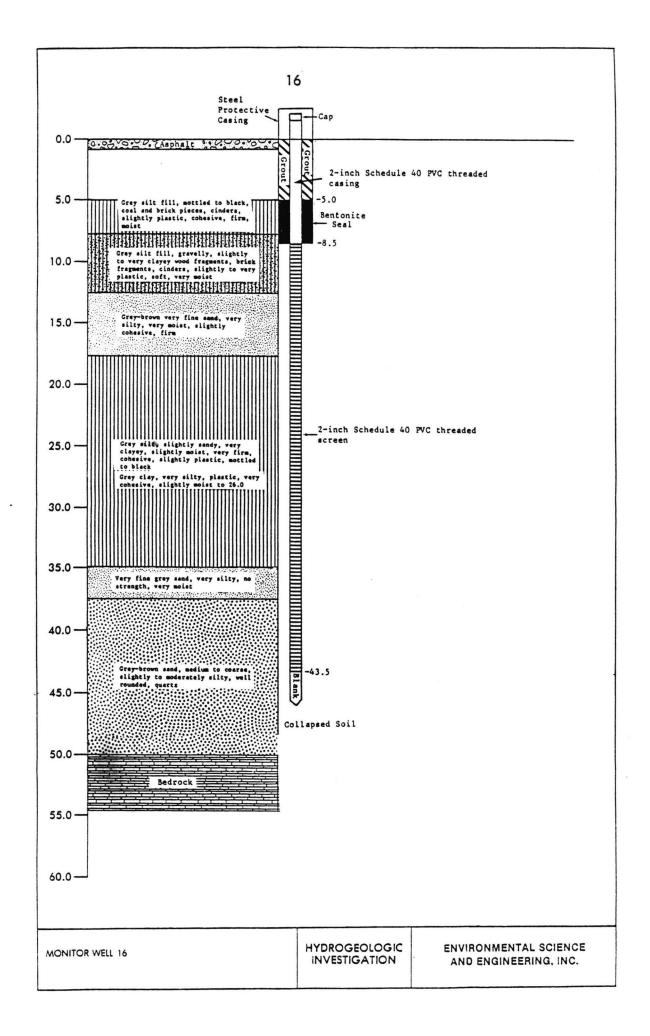


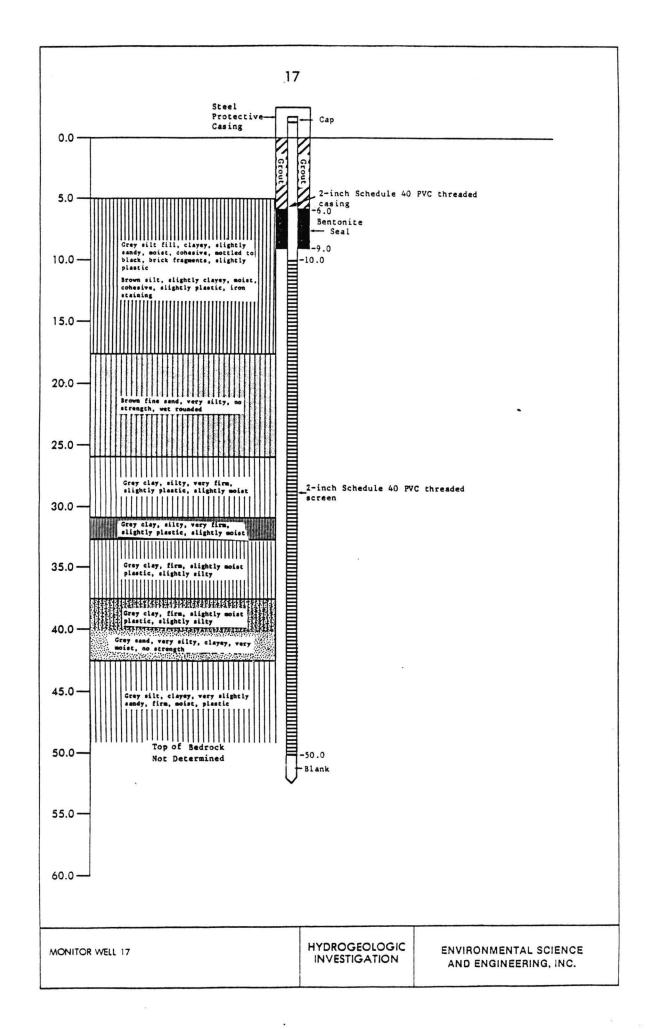


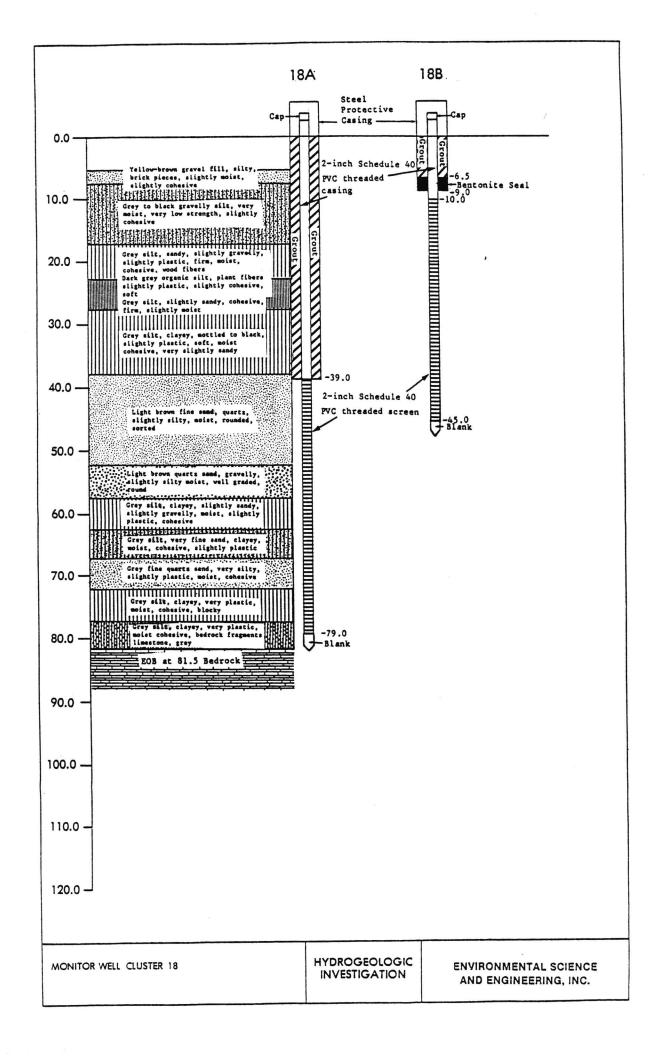


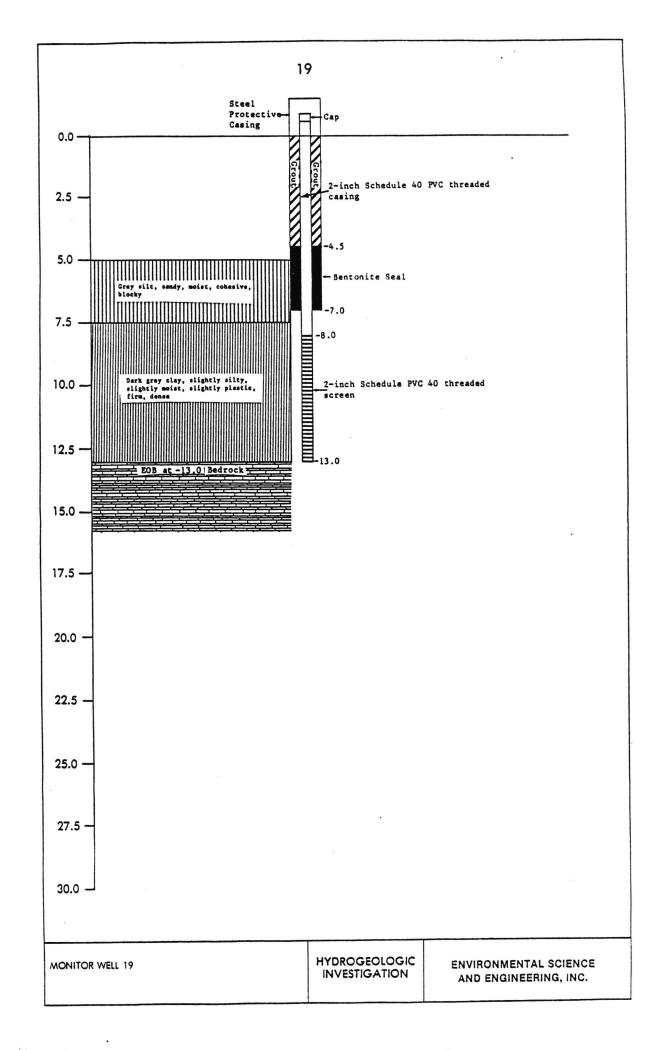


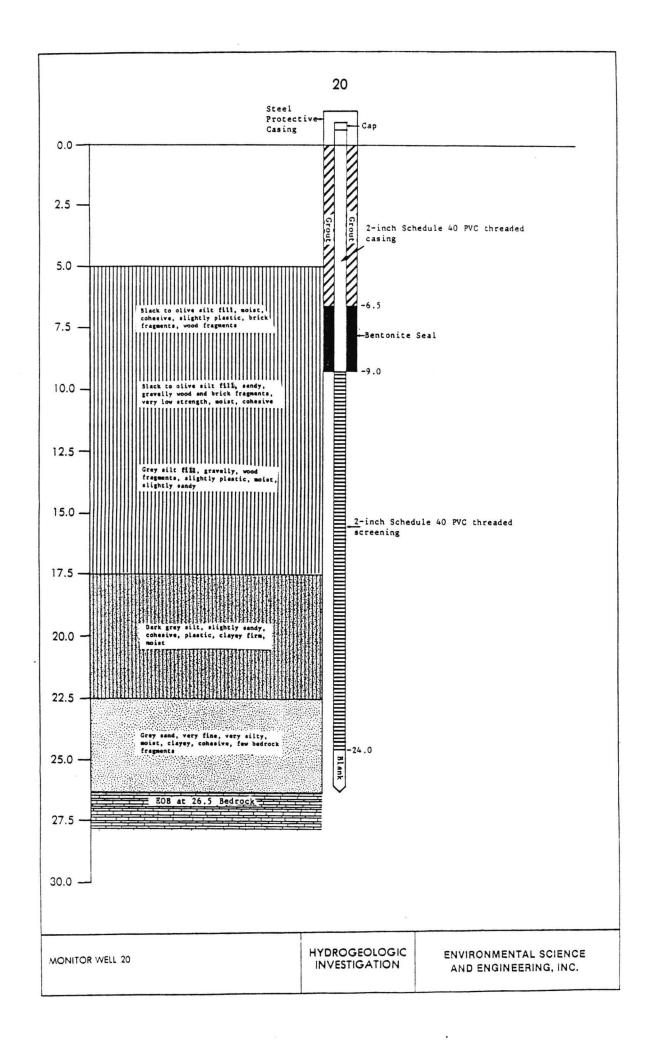












HOLE DIAMETER

MATER LEVEL

OMPLETION DEPTH

PAGE _) _ OF _)

	BORI	NG NU	IMBER .	SB-A	CLIENT	Mon	SANTO)		
<u></u>	DATE	DRIL	LED .	5-6-85	PROJECT	QUEE	NY -	SUBSURFACE	INVESTIGATION	
		'ATION			GEOLOGIST	KEN	M_{ϵ}	YER		
UEPTH, FT.	SAMPLE	SAMPLE # AND TYPE	BLOWS PER 6 INCHES	DESCRIPTION AND	REMARKS	ОЕРТН, FT.	USCS SYMBOL AND INTERVAL	WELL SKETCH	- - - -	
5 -									-	
5.0 -		55-A1	1 5 15" 5	, , , , , , , , , , , , , , , , , , , ,			CL		-	
1		55-A2	1 2 15" 4	GRAY CLAY, FIRM TO V. F COHESIVE, V. SL. PLASTIC, I	TIRM, SL. MOTILED. MOO. MOIST		CL		-	
15-									-	
		55-A3	4 18"	GRAY CLAY, MOTILED, V. F SL. MOIST, SL. SILTY NOW P COMESIVE	LASTIC		CL			
>0 -		55-A4	1 3 18" 4	GRAY SILTY CLAY FIRM, HA COHESIVE, MOTTLED SLP	ED MOD MOIST, CASTIC		CL		-	_
A 5	Y		1	GRAY CLAY, MOD SILTY, ME MOD_TOSL. PLASTIC, MOTI	EDIUM SOFT		CL-CH		-	
	,	S6-A5	2 18"	MOD_TOSL. PLASTIC, MOTI COHESIVE	LED TO BLACK					
-					-				-	
-					,					
					ŀ					
<u>'</u>					ļ					_
\exists	Ì				-					
									,	
IET	HOD	OF DR	ILLIN	G HOLLOW STEM AUGER	WELL D	IAMET	ER	<u> </u>		

WELL MATERIAL

≈/3'

WELL DEVELOPMENT _____

WATER LEVEL INITIAL _____FINAL ____

HOLE DIAMETER

WATER LEVEL

COMPLETION DEPTH

PAGE _/ OF _/

	BOR	ING NU	JMBER	58-8	CLIENT	Mo	USANT	ಲ		
7	DATE	DRIL	LED	5-7-85	PROJECT	QUEE	-NY -	SUBSURFACE	INVESTIGATION	
	ELE	101TAV	١ .		GEOLOGIST	100				
OUEPTH, FT.	SAMPLE	SAMPLE # AND TYPE	BLOWS PER 6 INCHES	DESCRIPTION AN	ND REMARKS	DEPTH, FT.	USCS SYMBOL AND INTERVAL	WELL SKETCH	-	
5-				4					- - -	
-50 -		5B-B1	1 15	GRAY-BROWN CLAY, SL. SL. MOIST, COHESIVE			CL		-	
		58-B2	1 2 18" 4	GRAY MOTILED CLAY, SL PLASTIC, SL MOIST, COH	SICTY, SL. TO MOD. HESIVE, FIRM		CL		-	
75-		5B- B 3	1 3 18" 5	GRAY CLAY, AS ABOUE BROWN CLAY, FIRM, SU COHESIVE NOW AASTI	SILTY, SL. MOIST		CL		- -	
5.0		58-84	1 2 18" 3	BROWN CLAY, MOTILED, SL. MOIST, COHESIVE, SL	FIRM, STIFF	_	CL		-	
-12.5	7	68-8 <i>5</i>	1 1 2	MOTILED GRAY BROWN S WET -SATURATED, SL. A	CLASTIC		CL		- -	
0									=	
									_	
5										
	400	OF DR	III ING	HOLLOW STEM AU	GER WELL D	I AMET				

WELL MATERIAL

WELL DEVELOPMENT _____

WATER LEVEL INITIAL _____FINAL ___

COMPLETION DEPTH

WATER LEVEL

PAGE _ | OF _ |

RING NU	JMBER :	58-C	CLIENT	Mon	SANT	0		
TE DRIL	LED .	5-7-85	PROJECT	Que	ENY -	SUBSURFALE	INVESTIGATION	
NOITAVA.	١ .		GEOLOGIST	KEN	M	EYER		
INTERVAL SAMPLE # AND TYPE	BLOWS PER 6 INCHES	DESCRIPTION AND R	EMARKS	рертн, гт.			-	
5B-C4	1 2 18"	BROWN MOTICED CLAY, SC. MOTICED CLAY, SC. MOTICED SIL PLASTIC, COHESIVE, SL. PLASTIC, GRAY-BROWN CLAY, SC. MOTICED CLAY SL. PLASTIC, COHESIVE	MOST SL SILTY MOO. FIRM SL. SILTY SL. SILTY		CL			
	SB-C3	TE DRILLED SAMPLE # AND TYPE SB-C3 18,	SB-C3 GRAY-BROWN CLAY, SC. PLASTIC, COHESIVE SB-C4 GRAY-BROWN MOTILED CLAY, SC. PLASTIC, COHESIVE SB-C4 GRAY-BROWN MOTILED CLAY, SC. PLASTIC, COHESIVE SB-C5 GRAY-BROWN MOTILED CLAY, SC. PLASTIC, COHESIVE SB-C4 GRAY-BROWN MOTILED CLAY, SC. PLASTIC, COHESIVE SB-C5 GRAY-BROWN MOTILED CLAY SL. PLASTIC, COHESIVE SB-C5 GRAY-BROWN MOTILED CLAY SC. PLASTIC, COHESIVE	TE DRILLED 5-7-85 PROJECT GEOLOGIST DESCRIPTION AND REMARKS DESCRIPTION AND REMARKS DESCRIPTION AND REMARKS BROWN CLAY FILL, SL. PLASTIC, SL MOIST, SL. SILTY, COHESIVE SB-C2 1 BROWN MOTICED CLAY, SL MOIST, SL SILTY COHESIVE SB-C3 1 GRAY-BROWN CLAY, SL MOIST, SL SILTY COHESIVE SB-C4 1 GRAY-BROWN MOTICED CLAY, SL SILTY COHESIVE SB-C4 1 GRAY-BROWN MOTICED CLAY, SL SILTY COHESIVE SB-C4 1 GRAY-BROWN MOTICED CLAY, SILTY, MOIST SL PLASTIC, COHESIVE SB-C4 1 GRAY-BROWN MOTICED CLAY, SILTY, MOIST SL PLASTIC, COHESIVE SB-C5 1 GRAY-SILT, UEAY CLAYEY, PLASTIC, COHESIVE SATURATED	SB-C3 BROWN MOTICED CLAY, SC. MOST, SC. MASTIC, SC. SILTY COHESIVE SB-C4 BROWN CLAY FILL, SC. PLASTIC, MODIST, SL. MOST, SC. MASTIC, SC. SILTY COHESIVE SB-C3 GRAY-BROWN MOTICED CLAY, SC. MOTICED, FIRM SL. MOIST, SC. MASTIC, SC. SILTY COHESIVE SB-C4 GRAY-BROWN MOTICED CLAY, SILTY, MOIST SL. MOIST, SC. MASTIC, SC. SILTY COHESIVE SB-C4 GRAY-BROWN MOTICED CLAY, SILTY, MOIST SL. PLASTIC, COHESIVE SB-C4 GRAY-BROWN MOTICED CLAY, SILTY, MOIST SL. PLASTIC, COHESIVE SB-C5 GRAY-SILT, USAY CLAYET, PLASTIC, COHESIVE SATURATED	SB-C2 1 BROWN CLAY FILL, SL. PLASTIC, MOD. FIRM SB-C3 1 BROWN CLAY, SL. MOTILEO, FIRM SL. MOIST, SL. MOSTIC, SL. SILTY COHESIVE SB-C4 1 BROWN MOTILEO CLAY, SL. MOTILEO, FIRM SL. MOIST, SL. MASTIC, SL. SILTY COHESIVE SB-C4 1 BROWN MOTILEO CLAY, SL. MOTILEO, FIRM SL. MOIST, SL. MASTIC, SL. SILTY COHESIVE SB-C5 1 GRAY-BROWN MOTILEO CLAY, SL. MOTILEO, FIRM SL. PLASTIC, COHESIVE SB-C5 1 GRAY-BROWN MOTILEO CLAY, SL. SILTY COHESIVE SATURATED	TEDRILLED 5-7-85 PROJECT QUEENY - SUBSURFALE EVATION GEOLOGIST KEN MEYER TO SHOW SHAPE DESCRIPTION AND REMARKS SB-C1 SB-C3 SROWN CLAY FILL, SL. PLASTK, SL MOIST, SL. SILTY COHESIVE SB-C3 GRAY-BROWN CLAY, SL. MOTILEO, FIRM 2 SB-C4 SL. MOIST, SL. MOST, SL. SILTY COHESIVE SB-C4 GRAY-BROWN CLAY, SL. MOTILEO, FIRM SL. MOIST, SL. MASTIC, SL. SILTY COHESIVE SB-C4 GRAY-BROWN MOTILEO CLAY, SL. SILTY COHESIVE SB-C5 GRAY-BROWN MOTILEO CLAY, SL. SILTY COHESIVE SB-C4 GRAY-BROWN MOTILEO CLAY, SL. SILTY COHESIVE SB-C5 GRAY-BROWN MOTILEO CLAY, SL. SILTY COHESIVE SB-C5 GRAY-BROWN MOTILEO CLAY, SILTY, MOIST COHESIVE SB-C5 GRAY-BROWN MOTILEO CLAY, SILTY, MOIST COHESIVE SATURATED	THE DRILLED 5-7-85 PROJECT QUEENY - SUBSURGE INVESTIGATION GEOLOGIST KEN MEYED L. MEYED L. MEYED L. MEYED L. MEYED DESCRIPTION AND REMARKS SB-C1 1 BROWN CLAY FILL, SL. PLASTK, SL MOIST, SL. SILTY, COHESIVE SB-C2 1 B' SCOWN MOTILED CLAY, SL. MOIST, SL. SILTY COHESIVE SB-C4 1 GRAY-BROWN MOTILED CLAY, SL. MOIST, SL. SILTY COHESIVE SB-C4 1 GRAY-BROWN MOTILED CLAY, SL. SILTY COHESIVE SB-C4 1 GRAY-BROWN MOTILED CLAY, SL. SILTY COHESIVE SB-C5 1 GRAY-SILT, USAY CLAYET, PLASTIC, COHESIVE SATURATED

WELL DEVELOPMENT _____

WATER LEVEL INITIAL _____FINAL ____

WATER LEVEL

PAGE ____ OF ___

BORING NUMBER	SB-D CLIENT	MONSANTO
DATE DRILLED	5-7-85 PROJECT	QUEENY - SUBSURFACE INVESTIGATION
ELEVATION	GEOLOGIST	KEN MEYER
DEPTH, FT. SAMPLE INTERVAL SAMPLE # AND TYPE BLOWS PER 6 INCHES	DESCRIPTION AND REMARKS	USCS SYMBOL AND INTERVAL SSSABOL AND INTERVAL THE STATE STATE THE STATE
-25-	DARK GRAY CLAY, SL. SILTY, FIRM, COHESIVE	
58-01 15" 3 58-02 18"	SL. MOIST, SL. PLASTIC	CL
7.5	v	
S8-03 1 15"	DARK GRAY AS A BOVE TO B.O BROWN MOTHED CLAY, FIRM, SLIMOIST SL. PLASTIC, COHESIVE	CL .
58-04 1 16"	BROWN MOTILED SILTY CLAY, MOIST SL. PLASTIC, COHESIVE	C L
125-		
METHOD OF DRILLIN HOLE DIAMETER COMPLETION DEPTH	7" WELL M	I AMETER ATERIAL EVELOPMENT

WATER LEVEL INITIAL _____FINAL __

WATER LEVEL

PAGE 1 OF 2

	BORI	NG NU	MBER S	B-E/MWA	CLIENT	MON	SANTO					-
	DATE	DRIL	LED _	5-11-85	PROJECT	QUE	NY -	Subsure	ALE	Į,	WESTIG ATION	<u>,</u> 1
	ELEV	ATION	_		GEOLOGIST	KEN	MEYE	ER				-
о Ферти, гт.	SAMPLE INTERVAL	SAMPLE # AND TYPE	BLOWS PER 6 INCHES	DESCRIPTION AND REA	MARKS	DEPTH, FT.		WELL SKETCH				
-2.5 -												
-5.0 -		SB-E1 SB-€2	- 18" 18"	BROWN - GRAY CLAY, FIRM, COHESIVE SC. SILTY, SL. BROWN - GRAY CLAY AS ABO	M015T	-	CL					
-7.5 -		58- <i>€</i> 3	1	BROWN - GRAY WAY AS ABO)VE		CL		GROUT		GROUT	
<i>- 10.</i> 0 −		58- <i>E</i> 4	1 3 18" 4	BROWN GRAY CLAY AS ABOVE 1			CL	×		RISER		
-12.5-	5	58 <i>-€S</i>	1 18"	DARK GRAY CLAYEY SILT, MOIS COHESIVE	T, PLASTIC	-	mH			Tercoñ		
-15.0-		5B-E4	1 3 4 8"	GRAY CLAYEY SILT AS ABOUT LATE SILT, SO SCISANDY, MOTICED		*	mL		BENTONITE	2" TEF	SEAL	
-70.D		S8-67	1 18"	BROWN CLAYET SILT, MOTILED, S WORM TUBES, COHESIVE SU	SL.SANDY RASTIC		ml		SAND		SAND	
HO	_E D	OF DE	ER	16 HOLLOW STEM AUGE 	WELL WELL	MATER	IAL		2	N	Omp	

WATER LEVEL INITIAL _____FINAL _

WATER LEVEL

PAGE 2 OF 2

BORING NUM	1BER <u>s</u>	SBE/MWA	CLIENT	Mon	SANTO)				
DATE DRILL	.ED _	: F	PROJECT	Quee	NY -	SUBSURFA	Œ.	INVES	TIGATION	j
ELEVATION	_		SEOLOGIST	KEN	MEY	ER				
SAMPLE INTERVAL SAMPLE # AND TYPE	BLOWS PER 6 INCHES	DESCRIPTION AND REMA	ARKS	рертн, ғт.	USCS SYMBOL AND INTERVAL	WELL SKETCH			-	
_20D	18"	Lt. BROWN , V.SILTY, V. FINE S STRATIFIED, I RONSTAINING	, WELL SORTE		sm		SWITED SLEEFIN 2" RISER		- - - - -	
SB-E9 3	1 3 18" 3	LT. BROWN V. SICTY FINE SAND STRATIFIED, IRON STAINING, SORTED LT. BROWN SICTY FINE SAND, T GRAY, HARD, STRATIFIED	, SL. CLAYEY		5m Sm		ONO FACTOR! SE	SAND		
-275 - SB-E11	3 18"	FINE TO MEDIUM SAND DAR	K GANY RADED		SW		111112" TEFLON			
30.8 - 58-€12 E	18	FINE TO MEDIUM SAND -AS A	ABOVE		SW		[<u>=</u>]			
_325 _		BEDROCK								
METHOD OF DRI HOLE DIAMETER COMPLETION DE	1	HOLLOW StEM AUGER 7" 30.0	WELL D WELL M WELL D	ATERI	AL	TEFL.	٥٢ _	Pum	 o	_

WATER LEVEL INITIAL _____FINAL ___

HOLE DIAMETER

WATER LEVEL

COMPLETION DEPTH

17'

PAGE _/ OF _/

TEFLON

WELL DEVELOPMENT SUERE + PUMP

WATER LEVEL INITIAL _____FINAL

WELL MATERIAL

		BORI	NG NU	MBER .	MW B	CLIENT	Mon	SANT	0					
-(1		DATE	DRIL	LED .	5-10-85	PROJECT	QUEE	NY - S	SUB SURFA	€.	Ī	N u e	STIGATION	
		ELEV	ATION			GEOLOGIST	KEN		YER					
	оберти, ет.	SAMPLE INTERVAL	SAMPLE # AND TYPE	BLOWS PER 6 INCHES	DESCRIPTION AND F	REMARKS	O DEPTH, FT.	USCS SYMBOL AND INTERVAL	WELL SKETCH					
The state of the s	-2.5 - -5.0 - -7.5 - -10.0- -17.5-				SEE DESCRIPTION MW-A		-2.5 - -5.0 - -7.5 - -10.0 - -12.5 -			SAND BENTANTE GROUT	111 2" O.OIO FACTORY SLATED TECHNISCREEN A"SCH 40 TEFLON RISER	SEAL		2.5-
	MET	HOD F DI	OF DR	ILLIN	G HOLLOW STEM AUGO	<u>ee</u> WELL D WELL M			2" T€					

PAGE ____ OF ___

	BORI	NG NU	MBER .	SA-F MWC	CLIENT	Mo	NSAN	TO			
_	DATE	DRIL	LED .	5-10-85	PROJECT	QUE	ENY-	· Sue Su	DRFACE	E INVESTIG	ATION
	ELEV	'ATION			GEOLOGIST						
DEPTH, FT.	SAMPLE	SAMPLE # AND TYPE	BLOWS PER 6 INCHES	DESCRIPTION AND RE		оертн, гт.	30L VAL	WELL SKETCH			
-5.0 -	Y ~			WATER AT 0.5' GRAVEL FILL TO 7.0 BRICKS AND WOOD TO DRILLED TO 10.0 FIRST SAMPLE	7.5'	-2,5 - -5,0-			2"ScH 40 PUC RISER	SeAL	
- 12.5 -		58-F4 58-F <i>5</i>	। 8" त	GRAY CLAYEY SILT, MOIST, PLASTIC, COH ESIVE GRAY CLAYEY SILT, MOTTLE PLASTIC, COHESIVE, SOFT		-12.5-	MH MH		SCOTTED PUC SCREEN!		
_15.0 _		SB-F6	1 15"	GRAY CLAYEY SIT, SC. MC SL SANDY, PLASTIC, C SOPT	onesive	-15,0-	тН		SAND O 0.010 FACTORY SU		
17.5 -		S8- F7	ا 1 18″ ع	GRAY U.SILTY, UFINE SANG), U.mast STRENGTH	-17.5 - -200 -	5m		пп 3" 5сн 40		
COM	E DI	AMETE ION D	R	G HOLLOW Stem AUGER 7" 20'	_: WELL D _ WELL M _ WELL D _: WATER	ATERI EVELO	AL PMENT			- Pump FINAL	

COMPLETION DEPTH

WATER LEVEL

PAGE _ OF _

		BORI	NG NU	MBER	SB-G	CLIENT	mo	NSAN	170		
*		DATE	DRIL	LED	5-14-85	PROJECT	QUEE	NY - S	SUB SURFACE	INVESTIGATION	ı
7		ELEV	'ATION	١.	B-10-10-10-10-10-10-10-10-10-10-10-10-10-	GEOLOGIST	KEr	JM	eyer		
	OEPTH, FT.	SAMPLE INTERVAL	SAMPLE # AND TYPE	BLOWS PER 6 INCHES	DESCRIPTION AN	ND REMARKS	DEPTH, FT.	USCS SYMBOL AND INTERVAL	WELL SKETCH	,	
	-2.5 - -5.0 - -7.5 -		58-G7 58-G3 58-G4	1 2 4 18" 4	GRAY CLAY, SL. MOTTLE V.SL. PLASTIC MO GRAY CLAY, SL. MO SL. SILTY, SL. MO GRAY CLAY AS ABOUT GRAY MOTTLED CLAY SL. MOIST, SL. SI GRAY MOTTLED CLAY SL. PLASTIC, MOIST	DIST DITLED, V. FIRM, DIST VE TO 8.5 YY, CRUMBLY LTY , SL. CRUMBLY		CL CL CL			
	- 12.5 -		OF DR	TII IN	G HOLLOW St∈m A	<i>UG€</i> ⊵ WELL D	I AMET	ΕR			
l	HOL	E DI	AMETE	- · · ·	7"	WELL M					

WELL DEVELOPMENT

WATER LEVEL INITIAL _____FINAL ____

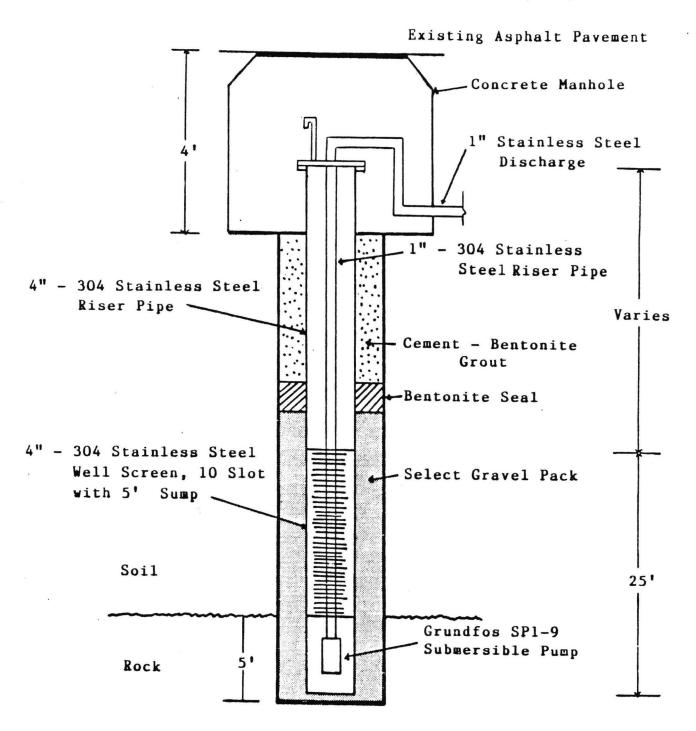
WATER LEVEL

PAGE _ L OF _

WATER LEVEL INITIAL _____FINAL ____

	BORI	ING NU	MBER .	5B-H	CLIENT	Moi	NSAN	TO	
_	DATE	DRIL	LED .	5-8-85	PROJECT	Q_{ϵ}	ENY-	SUB SURFACE INVESTIGATION	
		/ATION			GEOLOGIST				
DEPTH, FT.	SAMPLE	SAMPLE # AND TYPE	BLOWS PER 6 INCHES	DESCRIPTION AND R	EMARKS	ОЕРТН, FT.		WELL SKETCH - - -	-
-2.5		SB-H1	4 15"	GRAY CLAY, SL MOTTLED, FIT V.SI. PLASTIC, MOIST	RM, COHESIVE		CL	-	_
-5,0-	1	58-HQ	5	GRAY CLAY, SC. MOTTLED, L	l.Firm, SL SICTY	_	CL	-	-
-7.5 -		5B-H3	1 4 17" 5	GRAY CLAY AS ABOVE GRAY MOTILED CLAY, C SL. MOIST SL. SIL	AUMB LY		CL	- -	_
- 6.01 -		5B-H4	1 3 18" 3	GRAY MOTTLED CLAY . SL PLASTIC MOIST			CL	- -	-
									-
HOL	E DI	OF DR AMETE ION D	R	G HOLLOW Stem AUGE	WELL D WELL D	ATERI	AL		_





Typical PCE Recovery Well Monsanto - Queeny Plant St. Louis, Missouri



Boring/V	Vell GM-	1	Proiect/No.	Monsanto N0308QU2 Page 1 of 1
•			s , MO	Delling Delling
				Hole Diameter8 Type of Sample/ Split Spoon
			21/1½	
				□ Surveyed □ Estimated Datum Hollow Stem Auger
Drilling F Drilling				Drilling Method Hollow Stem Auger
Contract				Driller David Gotto Helper Brian Blum
Prepared By		. D.	Colton	Hammer 140 Hammer 30 inches
Sample/Collect below la	re Depth nd surface) To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2	1.5	10-7-8-	Fill - chat and brown silt
	_		10	
2	4	1.5	7-7-8-10	Clay, gray and brown, dense
4	6	2.0	2-3-5-8	do
6	8	2.0	9-12-18-	do (wet)
			20	
8	10	2.0	8-9-10-	do
			11	
10	11	1.0	8-9	Clay, silty, gray and brown; trace fine sand
11	11.75	0.75	5-3	do
11.75	9			Bedrock
				•



WELL CONSTRUCTION LOG

	1 4" Dia Protective Slee	Project Monsanto N0308QU2 Well GM-1	
1.75 ft	LAND SURFACE	Town/City St. Louis	
	K	County St. Louis State M0	
И	8 inch diameter	Permit No.	
И	inch diameter drilled hole	Land-Surface Elevation	
И	M	and Datum feet	
K	Well casing, 2 inch diameter, Stee 1		
	Steel	Installation Dates(s) 11/17/18/86	
И	☐ Backfill	Drilling Method Hollow Stem Auger	
И	☐ Grout Pre-mix	Drilling Contractor	
K		Drilling Fluid None	
4	4.5 ft		
	Bentonite	Development Techniques(s) and Date(s)	
	5.5 ft* \(\infty\) pellets	Bailing 11/20/86	
		Name	
	6,75 m	Fluid Loss During Drilling None 98	llons
		Water Removed During Development 7.5	
# ■	-Well Screen.	Static Depth to Water 5' below ground feet below	
機 =	⊒##I 4 inch diameter		M.P.
	2 inch diameter Stainless 10 slot	Pumping Depth to Waterfeet below	
	Stainless 10 slot	Pumping Duration hours	
	Stainless 10 slot Gravel Pack	Pumping Duration hours Yield gpm Date	
	Stainless 10 slot Gravel Pack Sand Pack Formation	Pumping Duration hours Yield gpm Date Specific Capacity gpm/ft	
	Gravel Pack Sand Pack Formation Collapse	Pumping Duration hours Yield gpm Date	
	Gravel Pack Sand Pack Formation Collapse	Pumping Duration hours Yield gpm Date Specific Capacity gpm/ft	
	Stainless10_slot ☐ Gravel Pack ☐ Sand Pack ☐ Formation Collapse	Pumping Duration hours Yield gpm Date Specific Capacity gpm/ft Well Purpose Monitoring	
	Gravel Pack Sand Pack Solution Collapse 11.75ft*	Pumping Duration hours Yield gpm Date Specific Capacity gpm/ft	
	575.44.50	Pumping Duration hours Yield gpm Date Specific Capacity gpm/ft Well Purpose Monitoring	
Mea	asuring Point is Top of	Pumping Duration hours Yield gpm Date Specific Capacity gpm/ft Well Purpose Monitoring	
Mea Wel	asuring Point is Top of	Pumping Duration hours Yield gpm Date Specific Capacity gpm/ft Well Purpose Monitoring	
Mea Wel Not	asuring Point is Top of Il Casing Unless Otherwise ed.	Pumping Duration hours Yield gpm Date Specific Capacity gpm/ft Well Purpose Monitoring	
Mea Wel Not	asuring Point is Top of	Pumping Duration hours Yield gpm Date Specific Capacity gpm/ft Well Purpose Monitoring	



Bering/\	WellGM	⁻² F	Project/No.	Monsanto N0308 QU2 Page 1 of 1
Site	, s	t. Lou	is, MO	Drilling 11/18/86 Drilling Completed 11/18/86
Total De	epth Drille	ed9.	75 feet	Hole Diameter 8 inches Coring Device Sample/ Split Spoon Sampling Interval Continuous feet
				□ Surveyed □ Estimated Datum
			N.	
				cDriller_David Gotto Helper_Culle D.
Prepare By	d Br	ian A.	Blum	Hammer 140 Hammer 30 inches
	ore Depth and surface)		Time/Hydraulic Pressure or	Sample/Core Description
0	2	1.25	10-4-3-3	Fill - chat and brown silt
2	4	1.5	3-4-6-9	
4	6	2	3-4-7-12	•
6	8	2	13-14-	same as above
			13-14	
8	10	0.15	2-4-5-8*	same as above; less dense
	9.75		ø	Refusal
				•
				* Spoon bounces off solid surface after 3"



WELL CONSTRUCTION LOG

2 ft []	ProjectMonsanto N0308QU2	WellGM-2
<u></u>	LAND SURFACE	Town/City St. Louis	
		County St. Louis	StateM0
И	8 inch diameter	Permit No.	
И	drilled hole	Land-Surface Elevation	
	Mall assiss	and Datum feet	□ surveyed
K	Well casing, 2 inch diameter,		☐ estimated
И	Steel Steel	Installation Dates(s)11/18/86	
И	Backfill	Drilling Method Hollow Stem	Auger
И	Grout Pre-mix	Drilling ContractorJohn Mathes	
	K	Drilling FluidNone	
4	2.75 ft*		
	Bentonite slurry	Development Techniques(s) and Date(s	s)
	3.75 ft · ☑ pellets	Bailing 11/20/86	
	4.75 n •	Fluid Loss During Drilling None	
		Water Removed During Development_	6.0 gallons
	Well Screen. 2 inch diameter	Static Depth to Water5'below	w ground feet below M.P.
	Stainless 10 slot	Pumping Depth to Water	feet below M.P.
體		Pumping Durationh	nours
	Gravel Pack	Yieldgpm	Date
#	Sand Pack Formation	Specific Capacity	gpm/ft
	Collapse	Well Purpose Monitoring	
	9.75 ft*		
	3		
	ft*	Remarks Bailed dry dur	ing development
		-	
Mea	asuring Point is Top of		
Well	I Casing Unless Otherwise		
Note	ed.		
*De	epth Below		
	nd Surface	1	
		Prepared byBrian A. B	lum



-Boring/V	Vell GM	<u>-3</u> F	Project/No.	<u>Monsanto N03080U2</u> Page 1 of 1
014-				Drilling Drilling Started 11/18/86 Completed 11/19/86
				T 10 1-1
				11010 212110101
Length a of Coring	and Dian g Device	neter 	2'/1½	
				□ Surveyed □ Estimated Datum
Drilling F	Fluid Use	d	N	loneDrilling Method Hollow Stem Auge
Drilling Contract	tor	John M	athes, In	Driller David Gotto Helper Culle D.
_	_			Hammer 140 Hammer 30 inches
Sample/Co (feet below la	re Death		Time/Hydraulic Pressure or Blows per 6 inches	
rion	10	(seet)		·
0	2	1.5	7-5-8-6	Fill; chat and brown silt grading to firm clay
2	4	2.0	7-9-11-	Clay, brown; firm (not as dense as previous borings)
			11	
4	6	2.0	2-4-6-8	Same as above, dense
6	8	2.0	12-13-	Same as above
			14-13	
8	10		4-5-7	Same as above
	9.5			Refusal
ie.				
			,	



WELL CONSTRUCTION LOG

4" Dia Protective Sleeve

T (
$\frac{3}{1}$ ft	LAND SURFACE
	8 inch diameter drilled hole
	Well casing, 2 inch diameter, Steel
	☐ Backfill ☐ Grout Pre-mix
	2.5 ft*
	Bentonite ☐ slurry 3.5 ft
	4.5 n •
	-Well Screen.
	2 inch diameter S <u>tainl</u> ess10 slot
	Gravel Pack Sand Pack Formation
	Collapse 9.5 ft*
<u> </u>	#•
Meas	suring Point is Top of

Measuring Point is Top of Well Casing Unless Otherwise Noted.

*Depth Below Land Surface

Project Monsanto N0308QU2	_Well_	GM-3	
Town/City St. Louis			
County St. Louis			
Permit No			
Land-Surface Elevation			
and Datum feet	□ surv	reyed	
	□ esti	mated	
Installation Dates(s)11/18/19/86			
Drilling Method Hollow Stem Auger	•		
Drilling Contractor John Mathes			
Drilling FluidNone			
			·
Development Techniques(s) and Date(s)			
Bailing 11/20/86		-	
Fluid Loss During Drilling None			gallons
Fluid Loss During DrillingNone Water Removed During Development			
		7.5	gallons
Water Removed During Development Static Depth to Water 2' below ground	d	7.5	gallons
Water Removed During Development Static Depth to Water2 below ground Pumping Depth to Water	d	7.5	gallons
Water Removed During Development Static Depth to Water	d	7.5	gallons
Water Removed During Development Static Depth to Water2	d	7.5	gallons feet below M.P. feet below M.P.
Water Removed During Development Static Depth to Water 2' below ground Pumping Depth to Water Pumping Duration hours Yield gpm Specific Capacity gpr	m/ft	7.5 Da	gallons feet below M.P. feet below M.P.
Water Removed During Development Static Depth to Water2	m/ft	7.5 Da	gallons feet below M.P. feet below M.P.
Water Removed During Development Static Depth to Water 2' below ground Pumping Depth to Water Pumping Duration hours Yield gpm Specific Capacity gpr	m/ft	7.5 Da	gallons feet below M.P. feet below M.P.
Water Removed During Development Static Depth to Water2	m/ft	7.5 Da	gallons feet below M.P. feet below M.P. te
Water Removed During Development Static Depth to Water2	m/ft not h	7.5 Da	gallons feet below M.P. feet below M.P. te
Water Removed During Development Static Depth to Water 2' below ground Pumping Depth to Water Pumping Duration	m/ft not h	7.5 Da	gallons feet below M.P. feet below M.P. te
Water Removed During Development Static Depth to Water2	m/ft not h	7.5 Da	gallons feet below M.P. feet below M.P. te
Water Removed During Development Static Depth to Water 2' below ground Pumping Depth to Water Pumping Duration	m/ft not h	7.5 Da	gallons feet below M.P. feet below M.P. te
Water Removed During Development Static Depth to Water 2' below ground Pumping Depth to Water Pumping Duration	m/ft not h	7.5 Da	gallons feet below M.P. feet below M.P. te

Brian A. Blum

Prepared by _



-Boring/V	VellGM	1-4P	Project/No	Monsanto N03080U2 Page 1 of 1
Site	S	t. Loui	is. MO	Drilling Started 11/20/86 Completed 11/20/86
Location	ath Deille	9.5	foot	Hole Diameter 8 inches Coring Device Split Spoon
			2 ' / 1½'	
_				□ Surveyed □ Estimated Datum
			athes, In	Driller David Gotto Helper Culle D.
Prepared	d Br	ian A.	Blum	Hammer 140 Hammer 30 inches
Sample/Co feet below la From	re Depth		Time/Hydraulic Pressure or Blows per 6 inches	
0	3	_	_	Fill: Top 6" asphalt, chat, 6" concrete, heterogeneous
				mixture of sand and gravel
3	5	1	2-6-3-3	
5	7	2	4-6-10-	
			12	
7	9	2	4-6-9-10	O Same as above
9	11	.5	9	Same as above
	9.5			Refusal
				•
				• 5



WELL CONSTRUCTION LOG

	urb				
-0.5ft N	ox	ProjectMonsanto	N0308QU2	Well	M-4
	AND SURFACE	Town/CitySt.			
		CountySt.	Louis	State	МО
1 / I	8	Permit No			
ии	- 8 inch diameter drilled hole	Land-Surface Elevat	ion		8
ИИ	IR.	and Datum	feet	□ surveyed	d .
	Well casing, 2 inch diameter.			☐ estimate	_
KI KI	Steel	Installation Dates(s)	11/20/86		
	Backfill	Drilling Method			
	Grout <u>Pre-mix</u>	Drilling Contractor	John Mathes		
ИИ		Drilling Fluid	· None		
	3 ft*				
Be	ntonite slurry	Development Techn	niques(s) and Date(s	s)	
	4 ft Dellets	Bailing 1	1/20/86		
	<u>5</u> ft*	Fluid Loss During D	rilling None		gallons
翼三翼		Water Removed Du	-		
	Well Screen.	Static Depth to Wate			
S ₁	_2 inch diameter tainless10_slot	Pumping Depth to V	Vater		feet below M.P
		Pumping Duration	h	ours	
	☐ Gravel Pack	Yield	gpm		Date
	- Sand Pack - Formation	Specific Capacity _		gpm/ft	
	Collapse	Well Purpose	Monitoring	-:	
				<u> </u>	
# = #	_10 ft*				
	ft*	Remarks			
Measuring	Point is Top of				
Well Casin	g Unless Otherwise				
Noted.	v				
*Depth Be					
Land Sur	face	1			
	* ×	Prepared by	Brian A. B	Tum	



Pering/V	Vell GM	1-5 F	Project/No.	Monsanto N0308 QU2 Page 1 of 1
Site	S:		is MO	Drilling Drilling Started 11/21/86 Completed 11/21/86
Location			13, 110	Started Type of Sample/ Split Space
Total De	pth Drille	ed	5 feet	Hole Diameter inches
Length a of Coring	and Diam Device	neter 	2'/1½	Sampling Interval Continuous feet
				□ Surveyed □ Estimated Datum
Drilling F	Fluid Use	d	N.	one Drilling Method Hollow Stem Auger
Drilling Contract	or	John M	athes, In	cDriller_David Gotto Helper Culle D.
Prepared By	d Br	ian A.	Blum	Hammer 140 Hammer 30 inches
Sample/Co feet below is From			Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
Tion		(IOOL)		
0	1	-	-	Asphalt and fill; gravel
1	3 :	1.5	4-5-7-9	Fill; sand, coarse and gravel, into clay, brown; to silt
3	5	2.0	10-7-7-	Clay, brown; with silt and moist
			9	
5	7	2	4-7-7-7	Same as above
7	9 ;	2	8-11-3-	Same as above
			5	
9	11	2	9-10-7-	Clay, brown grading to silt
			8	
11	13 .		11-24-	Silt, brown moist grading to sand, medium to coarse
			7-13	
13	14	1	10-14	Sand, medium to coarse (65%), silt (35%)
16	16.5	0.5	2	Silt and clay, brown-gray
	16.5			Refusal
				·



WELL CONSTRUCTION LOG

Curb			
0.5 Box	ProjectMonsanto N0308QU2	Well	GM-5
LAND SURFACE	Town/City St. Louis		
N N	County St. Louis	State	MO
8 inch diameter	Permit No		
drilled hole	Land-Surface Elevation		
114	and Datum feet	□ surveyed	
Well casing, 2 inch diameter, Steel		□ estimated	i
Steel	Installation Dates(s) 11/21/86		
☐ Backfill	Drilling Method Hollow Stem Au	ger	
☑ Grout Pre-mix	Drilling ContractorJohn Mathes		
K	Drilling Fluid None		
4.5 ft*			
Bentonite slurry	Development Techniques(s) and Date(s)		
5.5 ft* \(\times\) pellets	Bailing		

6.5 ft.	Fluid Loss During Drilling None		gallons
	Water Removed During Development		gallons
-Well Screen.	Static Depth to Water		_ feet below M.P.
Well Screen. 2 inch diameter Stainless 10 slot Gravel Pack Sand Pack Formation Collapse	Pumping Depth to Water		_ feet below M.P.
	Pumping Duration hou	ırs	
☐ Gravel Pack	Yield gpm	Da	ate
□ Sand Pack	Specific Capacity	gpm/ft	
Formation Collapse	Well Purpose Monitoring		
16.5 _{ft} •			
ft*	Remarks		
feasuring Point is Top of			2
ell Casing Unless Otherwise			
loted.			
Depth Below			
Land Surface			
	Prepared byBrian A. Blu	ım	
	•		



Boring/	Nell B-	-11	Project/No.	Monsanto N0308QU2 Page 1 of 1
Site	s	t. Lou	is, MO	Drilling Drilling Started 11/18/86 Completed 11/18/86
Total De	epth Drille	ed		Hole Diameter 8 inches Type of Sample/ Split Spoon Coring Device
	_			□ Surveyed □ Estimated Datum
Drilling f	Fluid Use	ed	N	Ione Drilling Method Hollow Stem Aug
Contrac				Driller David Gotto Helper Culle D.
Prepare By	d Br	ian A.	Blum	Hammer Hammer Drop 30 inches
Sample/Co feet below la	ore Depth and surface) To	Core Recovery (leet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2	1.5	7-4-5-7	Fill: chat (pink discoloration) clay, brown
2	4	0.5	7-10-11-	
			13	
4	6	2.0	2-3-6-9	Clay, gray-brown; dense
6	8	2.0	16-15-	.Same as above
			14-14	
. 8	10	.2.0	3-5-7-7	Same as above; less dense, to silt
10	11	1.0	7-7	Same as above
			refusal	
	11			Refusal
				•
-				
	1.		1	



E	Boring/₩	ett_B-	2F	Project/No.	Monsanto N0308QU2 Page 1 of 1
5	Site	St	t. Lou	is, MO	Drilling Started 11/19/86 Completed 11/19/86
•	Coallon		. 0	75	Hole Diameter8
Ċ	of Coring	Device		2'/1 1	Sampling Interval Continuous feet
L	and-Sur	face Ele	v	feet	□ Surveyed □ Estimated Datum
	Orilling Fl	uid Use	d	N	one Drilling Method Hollow Stem Auger
	Orilling Contracto	or	John M	lathes, In	c. <u>Driller David Gotto</u> Helper Culle D.
F	Prepared By	Br	ian A.	Blum	Hammer 140 Hammer 30 inches
	Sample/Corr et below lan From	e Death		Time/Hydraulic Pressure or	Sample/Core Description
	0	2	1.5	8-10-13-	Fill: chat and sand, medium brown (pink discoloration)
ŀ		-	1.7	8	TTTT: Chac and Sand, moutam Stown (print Ciperature)
-					
	2	4	1.0	6-5-4-3	Same as above; bright pink-purple color
	4	6	0	2-2-2-1	No recovery
	6	8	0	7-4-3-2	No recovery in spoon: pulled center plug and had fill
					coarse sand/gravel
	8	10	9.75	3-9-10-	Fill: chat and sand; same as at top
				10*	
			9.75		Refusal
					* 3" and Refusal
					^) dilu kelusai
		-			·



Boring	/Well	B-3	Project/No.	Monsanto N0308QU2 Page 1 of 1	
Site			:- 40	Drilling 11/19/86 Drilling Completed 11/19/86	
Locatio	on	St. Lou	IS, MU	Time of Comple!	_
				Hole Diameter 8 inches Coring Device 35116 350011	_
Length of Cori	and Di ng Devi	iameter ce	21/1111		et
			feet	□ Surveyed □ Estimated Datum	_
		Jsed	None	Drilling Method Hollow Stem Au	- e
Drilling Contra	ctor	John	Mathes, I	IncDriller David Gotto Helper Culle D.	
Prepar By	ed	Brian A	. Blum	Hammer 140 Hammer 30 Inch	105
Sample/(feet below	Core Dept land surf		Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description	
0	1	-	-	Chat and concrete	
1	3	1.25	3-1-2-4	Clay, black; dense	
3	5	2	3-4-6-9	Same as above	
5	7	2	12-13-	Same as above	
			14-17		
7	. 9	2	3-4-7-8	Same as above	
9	11	-			
	9			Refusal	
				`	



Boring/¥	Vett B	-4	Project/No.	<u>Monsanto N0308QU2</u> Page 1 of 1				
0				Drilling Drilling Started 11/20/86 Completed 11/20/86				
				Hole Diameter inches				
of Coring	Device		2'/1½	Sampling Interval Continuous feet				
Land-Surface Elevfeet								
Drilling Fluid Used Drilling Method Hollow Stem Auge								
Drilling Contractor John Mathes, Inc DrillerDavid GottoHelperCulle D.								
Prepared By Brian A. Blum Hammer Weight 140 Drop 30 inches								
Sample/Collect below la	re Depth		Time/Hydraulic Pressure or	Sample/Core Description				
0	1.75	.75	8-10-8-	Fill: chat and sand, medium light brown, spoon				
			25	refusal at 1.75' (0.5' concrete)				
2	4	1.0	1-10-13	Clay, gray: wet				
			14					
4	6	2	5-3-6-9	Clay, gray: wet				
6	8		11-15-	Clay, gray: wet				
			14-16					
8	10		4-8	Same as above				
0	8.75			Refusal				
,				•				
				* ,				
				••				
				,				



Boring/¥	Vell-<u>B</u>-5	F	Project/No.	Monsanto N03080U2 Page 1 of 1				
Site Location	S	t. Lou	is, MO	Drilling Drilling Drilling Completed 11/21/86				
Total Depth Drilled 12.5 feet Hole Diameter 8 inches Type of Sample/ Split Spoon Coring Device								
Length and Diameter of Coring DeviceSampling Interval feet								
Land-Surface Elevfeet								
Drilling Fluid Used Drilling Method Hollow Stem Auger								
Drilling Contractor John Mathes, Inc Driller David Gotto Helper Culle D.								
Prepared Brian A. Blum Hammer Weight 140 Drop 30 inche								
Sample/Confect below la	re Depth		Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description				
0	1	1	-	Asphalt top 6" fill; chat and gravel				
1	3	0.25	4-5-5-6	Silt, brown with pink discoloration				
3	5	1.25	6-4-5-8	Sand, medium (50%), silt (50%) grading to clay; gray				
5	7	2	10-11-	Sand, medium to coarse, gray grading to clay, gray				
•			13-16					
7	9	-	7-9-10-	No sample				
			15					
9	11	2	6-8-12-	Clay, brown; with silt				
			14	•				
11	13		8-11-14	Same as above				
(6.7	12.5			Refusal				
			v	,				
				•				